

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify)**

*** 3. Date Received:**

4. Applicant Identifier:

5a. Federal Entity Identifier:

*** 5b. Federal Award Identifier:**

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:**

Santa Monica Bay Restoration Authority

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

33-0420271

*** c. Organizational DUNS:**

557382996

d. Address:

*** Street1:**

1 LMU Drive

Street2:

Pereira Annex, MS: 8160

*** City:**

Los Angeles

County:

Los Angeles

*** State:**

California

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

90045

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

*** First Name:**

Sean

Middle Name:

P

*** Last Name:**

Bergquist

Suffix:

Title:

Director of Watershed Programs

Organizational Affiliation:

*** Telephone Number:**

310-961-4891

Fax Number:

*** Email:**

sbergquist@santamonibay.org

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JUL 14 2011

GMO, MTS-7

Application for Federal Assistance SF-424

9. Type of Applicant 1: Select Applicant Type:

State overnment

Type of Applicant 2: Select Applicant Type:

County overnment

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

oint Po ers Authority

*** 10. Name of Federal Agency:**

U.S. nvironmental Protection Agency, Region 9

11. Catalog of Federal Domestic Assistance Number:

66.461

CFDA Title:

Region 9 Wetland Program Develo ment rant

*** 12. Funding Opportunity Number:**

PA-R 9-WP-11

*** Title:**

Region 9 Wetland Program Develo ment rant

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

California
Santa Barbara, entura, Los Angeles, range, and San Diego Counties

*** 15. Descriptive Title of Applicant's Project:**

A llication and Assessment of US PA hree- iered Monitoring Strategy to Southern
California Coastal Wetlands

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424	
16. Congressional Districts Of:	
* a. Applicant 36	* b. Program/Project 30, 35 34, 33, 31, 29, 28, 24, 46, 47
Attach an additional list of Program/Project Congressional Districts if needed.	
17. Proposed Project:	
* a. Start Date: 10/1/2011	* b. End Date: 9/30/2014
18. Estimated Funding (\$):	
* a. Federal 349,940.00	
* b. Applicant 00.00	
* c. State 170,000.00	
* d. Local 00.00	
* e. Other 00.00	
* f. Program Income 00.00	
* g. TOTAL 519,940.00	
19. Is Application Subject to Review By State Under Executive Order 12372 Process?	
<input type="checkbox"/> a. This application was made available to the State under the Executive Order 12372 Process for review on	
<input type="checkbox"/> b. Program is subject to E.O. 12372 but has not been selected by the State for review.	
<input checked="" type="checkbox"/> c. Program is not covered by E.O. 12372.	
20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.) Applicant Federal Debt Delinquency Explanation	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)	
<input checked="" type="checkbox"/> ** I AGREE	
** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.	
Authorized Representative:	
Prefix: Dr.	* First Name: Guangyu
Middle Name:	
* Last Name: Wang	
Suffix:	
* Title: Deputy Director	
* Telephone Number: 213-576-6639	Fax Number:
* Email: gwang@waterboards.ca.gov	
* Signature of Authorized Representative:	* Date Signed: 6/20/2011

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. PA WPD	66.461	\$	\$	\$ 349,490.00	\$ 170,000.00	\$ 519,490.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 349,490.00	\$ 170,000.00	\$ 519,490.00
SECTION B - BUDGET CATEGORIES						
6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)	
	(1)	(2)	(3)	(4)		
a. Personnel	267,520.00				267,520.00	
b. Fringe Benefits	66,880.00				66,880.00	
c. Travel	6,100.00				6,100.00	
d. Equipment	43,000.00				43,000.00	
e. Supplies	19,000.00				19,000.00	
f. Contractual	90,000.00				90,000.00	
g. Construction	00.00				00.00	
h. Other	00.00				00.00	
i. Total Direct Charges (sum of 6a-6h)	492,500.00				492,500.00	
j. Indirect Charges	27,440.00				27,440.00	
k. TOTALS (sum of 6i and 6j)	\$ 519,490.00	\$	\$	\$	\$ 519,490.00	
7. Program Income		\$ 00.00	\$	\$	\$	\$ 00.00

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. WPDG-2011	66.461	\$	\$	\$ 349,940.00	\$ 170,000.00	\$ 519,940.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 349,940.00	\$ 170,000.00	\$ 519,940.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY			Total (5)
	(1) Federal	(2)	(3) Match	
a. Personnel	\$ 130,998.00	\$	125,926.00	\$ 256,924.00
b. Fringe Benefits	45,849.00		44,074.00	89,923.00
c. Travel	6,100.00			6,100.00
d. Equipment	28,000.00			28,000.00
e. Supplies	18,260.00			18,260.00
f. Contractual	119,993.00			119,993.00
g. Construction				0.00
h. Other	740.00			740.00
i. Total Direct Charges (sum of 6a-6h)	349,940.00		170,000.00	519,940.00
j. Indirect Charges <i>Removed</i>	0.00			0.00
k. TOTALS (sum of 6i and 6j)	\$ 349,940.00	\$	170,000.00	\$ 519,940.00

7. Program Income	\$	\$	\$	\$	\$	0.00
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Standard Form 424A (Rev. 7-97)
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Previous Edition Usable

Revised 9/20/11

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. WPDG-2011	\$ 170,000.00	\$	\$	\$	170,000.00
9.					0.00
10.					0.00
11.					0.00
12. TOTAL (sum of lines 8-11)	\$ 170,000.00	\$ 0.00	\$ 0.00	\$	170,000.00
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 130,000.00	\$ 30,000.00	\$ 40,000.00	\$ 30,000.00	\$ 30,000.00
14. Non-Federal	60,000.00	15,000.00	15,000.00	15,000.00	15,000.00
15. TOTAL (sum of lines 13 and 14)	\$ 190,000.00	\$ 45,000.00	\$ 55,000.00	\$ 45,000.00	\$ 45,000.00
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. WPDG-2011	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	0.00
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:		22. Indirect Charges:			
\$519,940		\$0			
23. Remarks: Indirect cost rate = 0% (federal funds only, not matching funds)					

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. WPDG-2011	66.461	\$	\$	\$	\$ 349,940.00	\$ 519,940.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 349,940.00	\$ 170,000.00	\$ 519,940.00
SECTION B - BUDGET CATEGORIES						
Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY					Total (5)
	(1)	Federal (2)	Match (3)			
a. Personnel	\$	111,873.00	\$	125,926.00	\$	\$ 237,799.00
b. Fringe Benefits		39,156.00		44,074.00		83,230.00
c. Travel		6,100.00				6,100.00
d. Equipment		28,000.00				28,000.00
e. Supplies		18,260.00				18,260.00
f. Contractual		114,000.00				114,000.00
g. Construction						0.00
h. Other		740.00				740.00
i. Total Direct Charges (sum of 6a-6h)		318,129.00		170,000.00	0.00	488,129.00
j. Indirect Charges		31,811.00				31,811.00
k. TOTALS (sum of 6i and 6j)	\$	349,940.00	\$	170,000.00	\$ 0.00	\$ 519,940.00
7. Program Income	\$		\$		\$	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. WPDG-2011	\$ 170,000.00	\$	\$	\$	170,000.00
9.					0.00
10.					0.00
11.					0.00
12. TOTAL (sum of lines 8-11)	\$ 170,000.00	\$ 0.00	\$ 0.00	\$	170,000.00
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	\$	\$	\$	\$	\$
13. Federal	130,000.00	30,000.00	40,000.00	30,000.00	30,000.00
14. Non-Federal	60,000.00	15,000.00	15,000.00	15,000.00	15,000.00
15. TOTAL (sum of lines 13 and 14)	\$ 190,000.00	\$ 45,000.00	\$ 55,000.00	\$ 45,000.00	\$ 45,000.00
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. WPDG-2011	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	0.00
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges: \$ 488,129		22. Indirect Charges: \$ 31,811			
23. Remarks: Indirect cost rate = 10% (federal funds only, not matching funds)					

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. WPDG-2011	66.461	\$	\$	\$ 349,940.00	\$ 170,000.00	\$ 519,940.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 349,940.00	\$ 170,000.00	\$ 519,940.00
SECTION B - BUDGET CATEGORIES						
6. Object Class Categories		GRANT PROGRAM, FUNCTION OR ACTIVITY			Total (5)	
		(1) Federal	(2) Match	(3)		
a. Personnel		\$ 113,874.00	\$ 110,500.00	\$	\$	224,374.00
b. Fringe Benefits		41,981.00	59,500.00			101,481.00
c. Travel		6,100.00				6,100.00
d. Equipment		28,000.00				28,000.00
e. Supplies		18,260.00				18,260.00
f. Contractual		114,000.00				114,000.00
g. Construction						0.00
h. Other		740.00				740.00
i. Total Direct Charges (sum of 6a-6h)		322,955.00	170,000.00	0.00	0.00	492,955.00
j. Indirect Charges		26,985.00				26,985.00
k. TOTALS (sum of 6i and 6j)		\$ 349,940.00	\$ 170,000.00	\$ 0.00	\$ 0.00	\$ 519,940.00
7. Program Income		\$	\$	\$	\$	0.00

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Revised 7/26/11

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. WPDG-2011	\$ 170,000.00	\$	\$	\$	170,000.00
9.					0.00
10.					0.00
11.					0.00
12. TOTAL (sum of lines 8-11)	\$ 170,000.00	\$ 0.00	\$ 0.00	\$	170,000.00
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 130,000.00	\$ 30,000.00	\$ 40,000.00	\$ 30,000.00	\$ 30,000.00
14. Non-Federal	60,000.00	15,000.00	15,000.00	15,000.00	15,000.00
15. TOTAL (sum of lines 13 and 14)	\$ 190,000.00	\$ 45,000.00	\$ 55,000.00	\$ 45,000.00	\$ 45,000.00
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. WPDG-2011	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 130,000.00	\$ 120,000.00	\$ 99,940.00	\$	0.00
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:		22. Indirect Charges:			
\$ 492,955		\$ 26,985			
23. Remarks: Indirect cost rate = 10% (federal funds only, not matching funds)					

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. PA WPD		170,000.00		\$170,000.00	
9. 349,490.00				\$	
10. 170,000.00				\$	
11. 519,490.00				\$	
12. Total (SUM OF LINES 8-11)		170,000.00		\$170,000.00	

SECTION D - FORECASTED CASH NEEDS					
	Total for 1 st Year	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
13. Federal	\$66,480.00	\$14,060.00	\$14,060.00	\$19,180.00	\$19,180.00
14. Non-Federal	35,000.00	7,500.00	7,500.00	10,000.00	10,000.00
15. TOTAL (sum of lines 13 and 14)	\$101,480.00	\$21,560.00	\$21,560.00	\$29,180.00	\$29,180.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. PA WPD	\$338,590.00	\$79,870.00	\$	\$
17.				
18.				
19.				
20. TOTAL (sum of lines 16-19)	\$338,590.00	\$79,870.00	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges: fixed at 10 on federal, total: 27,440.00
23. Remarks:	

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Sean Patrick Bergquist, M. Env. Mgt.

5625 Green Valley Circle #104, Culver City, Ca 90230

tel. 310-961-4891 email. sbergquist@santamonica-bay.com

Education

Master of Environmental Management, Griffith University, Brisbane, Australia - 2004

B.A., Environmental Studies, University of California, Los Angeles - 1999

Employment History

Current Appointments

Director of Watershed Programs, Santa Monica Bay Restoration Commission	2006-Present
Faculty, Loyola Marymount University	2008-Present
Co-Director, Center for Santa Monica Bay Studies	2008-Present
Editor, <i>Urban Coast</i> , Science and Policy Journal	2009-Present

Previous Appointments

Faculty, California State Polytechnic University, Pomona	Winter 2009
Senior Resource Coordinator/Habitat Restoration Specialist, Sapphos Environmental, Inc.	2004-2006
Research Specialist, University of California, Los Angeles	1999-2003

Qualifications

As an environmental scientist and manager, Mr. Bergquist has over a decade of experience designing, implementing and managing complex environmental projects and research. Mr. Bergquist is currently the Co-Director of the Center for Santa Monica Bay Studies, a partnership of Loyola Marymount University and the Santa Monica Bay Restoration Foundation, which supports multidisciplinary research on environmental and social issues affecting Santa Monica Bay and its watershed. Mr. Bergquist is responsible for all activities of the Center, including directing research, identifying funding sources, and reporting to the advisory board. As an integral part of the Santa Monica Bay Restoration Commission, a California government agency, Mr. Bergquist is the Director of Watershed Programs where he is responsible for restoration and protection of streams and wetlands of the Santa Monica Bay and its watersheds. In this effort, Mr. Bergquist directs watershed planning, research, and monitoring and assessment projects with budgets in the millions of dollars. Mr. Bergquist represents the SMBRC on numerous scientific advisory groups, and participates in workshops and lectures to inform agency and non-profit staff of the current state of the science of ecological restoration. Mr. Bergquist is also a faculty member at Loyola Marymount University where he teaches courses on ecological restoration, environmental science and sustainability, and introduces students to field and laboratory research methodology.

Relevant Experience

Scientific, Technical and Regional Advisory Committees

Mr. Bergquist is a respected scientist and manager in the region and has been requested to lead or represent the Santa Monica Bay Restoration Commission on various scientific, technical and regional advisory committees, including:

- Southern California Wetlands Recovery Project Science Advisory Panel and Wetlands Managers Group
- Malibu Legacy Park Project Technical Advisory Committee
- Ballona Wetlands Restoration Project Science Advisory Committee and Agency Advisory Committee

Restoration Planning

- Coordinated restoration planning efforts for the 600-acre Ballona Wetlands Ecological Reserve
- Provided technical oversight and guidance for Malibu Lagoon, Ballona Lagoon, Las Virgenes Creek, Del Rey Lagoon, and Grand Canal restoration efforts.
- Developed research efforts to assist in restoration planning at Ballona Wetlands and Malibu Lagoon.
- Coordinated with Army Corps Lower Ballona Ecosystem Restoration Feasibility Study.

Policy Development

- Assisted local and state agencies with environmental policy issues.
- Participated in drafting of a Stream Protection Ordinance with the City of Los Angeles.
- Provided technical knowledge to the L.A. County Integrated Regional Water Management Plan (IRWMP).

Restoration/Project Design

- Collaborated to develop vernal pool plan to create habitat for the endangered Riverside fairy shrimp.

- Designed restoration plan for spring and associated stream and riparian areas.
- Produced monitoring strategies for coastal sage scrub restoration project intended to provide habitat for the endangered Palos Verdes blue butterfly.
- Created field sampling methods for 18,000 acre vegetation monitoring project.

Survey, Monitoring and Assessment

- Developed site level (tier III) monitoring protocols for coastal wetlands using under the EPA's three tiered monitoring strategy for southern California.
- Executed a Modified Habitat Assessment Procedure for Lower Malibu Creek to assess a five-year restoration program implemented by a local nonprofit.
- Performed biological site assessments for sensitive plant and wildlife species in Los Angeles, San Bernardino and Riverside counties in accordance with agency standards and regulations.
- Completed field surveys and produced ACOE/CDFG wetland delineation reports.
- Led field research crews in all aspects of salt marsh restoration monitoring.
- Assisted graduate students in field and lab research project design and implementation.
- Assisted in design and implementation of phytoremediation and soil compaction studies
- Conducted a comprehensive watershed study to determine the effects of land uses on stream biota and water quality in the Calleguas Creek, Santa Clara River and Malibu Creek Watersheds.
- Helped design a study to provide data for regional standards development (i.e. TMDLs).
- Supervised collection, sorting and identification of stream macroinvertebrates in accordance with CDFG and EPA protocols
- Designed and implemented rocky intertidal surveys.

Sample Documents

- Ballona Wetlands Baseline Assessment Report, for the California Coastal Conservancy
- Ballona Creek Greenway Plan, for the California Coastal Conservancy
- Ballona Wetlands Feasibility Report, for the California Coastal Conservancy
- Ballona Outdoor Learning and Discovery Report, for the California Coastal Conservancy
- Memorandum of Understanding for Enhancement of Madrona Marsh, City of Torrance, California, for Los Angeles World Airports
- Marine Sediment Remediation Alternatives, Cleanup Levels and Regulatory Framework for Contaminated Sediment at U.S. Ports, for Port of San Diego
- San Joaquin Creek Revegetation 2005 Annual Report, for Metropolitan Water District So. California
- Ecological Spring Restoration for Streambed Alteration Agreement, for private client
- Report for Riparian Habitat and Restoration Project, Malibu, California, for Mountains Restoration Trust
- Environmental Monitoring and Bioassessment of Coastal Watersheds in Ventura and Los Angeles Counties, for California Regional Water Quality Control Board

Professional Presentations

- Ballona Wetlands: Urban Wetlands Restoration Planning, Headwaters 2 Oceans (H2O) Conference, 2008.
- Restoring Santa Monica Bay's Largest Wetland: Ballona Wetlands Restoration, Coastal Society Conf., 2008.
- Regional Wetland Restoration, Southern California Wetlands Recovery Project Symposium, 2008.
- Restoring Urban Wetlands, Association of National Estuary Programs Annual Conference, 2008.
- Tidal Loading Rates for Fecal Indicator Bacteria (FIB) in the Ballona Wetlands, California: Results Of 12- And 24-Hr Surveys, Southern California Academy of Sciences Conference, 2008 J. H. Dorsey, P. M. Carter, Loyola Marymount University – Participated as a contributing author.
- Riparian Habitat Restoration, Malibu, California, Southern California Academy of Sciences Conference, 2006.

Publications

- Bergquist, S. P., ed. 2010. *Urban Coast*. Center for Santa Monica Bay Studies. 2(1).
- Dorsey, J. H., P. M. Carter, S. Bergquist, R. Sagarin. 2010. Reduction of Fecal Indicator Bacteria (FIB) in the Ballona Wetlands Saltwater Marsh (Los Angeles County, California, USA) with Implications for Restoration Actions. *Water Research*. 44(15):4630-4642.
- Bergquist, S. P., ed. 2009. *Urban Coast*. Center for Santa Monica Bay Studies. 1(1).

Eric D. Stein

Principal Scientist
Southern California Coastal Water Research Project
Costa Mesa, California, 92626

Phone: (714) 755-3233
Fax: (714) 755-3299
Email: erics@sccwrp.org

EDUCATION:

D.Env. Environmental Science and Engineering, University of California, Los Angeles, 1995
M.Ed. Science Education, University of California, Los Angeles, 1988
B.S. Biology, University of California, Los Angeles, 1987

EXPERTISE:

As head of the Biology Department at the Southern California Coastal Water Research Project (SCCWRP), Dr. Stein oversees a variety of projects related to in-stream and coastal water quality, hydromodification, development of biological indices, and assessment of wetlands and other aquatic resources. His research focuses on effects of human activities on the condition of aquatic ecosystems, and on developing tools to better assess and manage those effects. Dr. Stein serves on numerous technical workgroups, committees, and scientific advisory panels at the Federal, State, and local levels related to water quality and wetland assessment and management. Before joining SCCWRP Dr. Stein worked as both a private consultant and for the Regulatory Branch of the Los Angeles District Corps of Engineers on issues related to wetlands and water quality management and regulation. Dr. Stein's experience includes wetland delineation, design of mitigation and restoration projects, development of monitoring programs, establishment of mitigation banks, and landscape-scale assessment.

EXPERIENCE:

2002 – Present	Principal Scientist - Southern California Coastal Water Research Project
1998 – 2002	Adjunct Associate Professor - California State University, Los Angeles, Department of Geography and Urban Analysis
1998 – 2002	Principal Ecologist, Associate Principal - PCR Services Corporation
1993 – 1998	Biologist, Senior Project Manager - U.S Army Corps of Engineers, Los Angeles District

PROFESSIONAL SERVICE:

- Associate Editor, Wetlands: Journal of the Society of Wetland Scientists (2009-Present)
- Southern California Wetlands Recovery Program Science Advisory Panel (1999-Present)
- California Wetland Monitoring Workgroup, Co-chair (2008 – present)
- USDA-NRCS National Easement Assessment Project – technical team (2011-present)
- U.S. Army Corps of Engineers Workgroup: Quantifying Significance of Aquatic Ecosystems (2010)
- NOAA Water Quality Synthesis & Assessment (SAM) Technical Advisory Committee (2006-2009)
- Society of Wetland Scientists, Western Chapter President (2006-2010)
- US Army Corps of Engineers – National Workgroup on Arid Stream Assessment (2007)
- California State Stream and Wetland Protection Policy Science Advisory Team (2009-present)

SELECTED RELATED PUBLICATIONS:

- Stein, E.D, S. Dark, T. Longcore, R. Grossinger, N. Hall, and M. Beland. 2010. Historical Ecology as a Tool for Assessing Landscape Change and Informing Wetland Restoration Priorities. *Wetlands*. 30:589–601
- Stein, E.D, M. Brinson, M.C. Rains, W. Kleindl, and F.R. Hauer. 2009. Wetland Assessment Alphabet Soup: How to Choose (or not Choose) the Right Assessment Method. *Wetland Science and Practice* 26(4):20-24.
- Stein, E.D. and D.B. Cadien. 2009. Ecosystem Response to Regulatory and Management Actions: the Southern California Experience in Long-term Monitoring. *Marine Pollution Bulletin* 59:91-100.

- Stein, E.D., A.E. Fetscher, R.P. Clark, A. Wiskind, J.L. Grenier, M. Sutula, J.N. Collins, and C. Grosso. 2009. Validation of a Wetland Rapid Assessment Method: Use of EPA's Level 1-2-3 Framework for Method Testing and Refinement. *Wetlands* 29(2):648-665.
- Lyon, G.S. and E.D. Stein. 2009. How Effective Has the Clean Water Act Been at Reducing Pollutant Mass Emissions to the Southern California Bight over the Past 35 Years? *Environmental Monitoring and Assessment* 154(1):413-426.
- Nezlin, N.P., K.K. Kamer, J. Hyde, and E.D. Stein. 2009. Dissolved Oxygen Dynamics in a Eutrophic Estuary, Upper Newport Bay, California. *Estuarine, Coastal and Shelf Science* 82:139-151
- Stein, E.D. and V.K. Yoon. 2008. Dry Weather Flow Contribution of Metals, Nutrients, and Solids from Natural Catchments. *Water Air and Soil Pollution* 190:183-195.
- Stein, E.D. and D. Ackerman. 2007. Dry Weather Water Quality Loadings In Arid, Urban Watersheds of the Los Angeles Basin, California, USA. *Journal of the American Water Resources Association* 43:398-413.
- Yoon, V.K. and E.D. Stein. 2008. Natural Catchments as Sources of Background Levels of Storm Water Metals, Nutrients, and Solids. *Journal of Environmental Engineering* 134(12):961-973.
- Ackerman, D. and E.D. Stein. 2008. Evaluating the Effectiveness of Best Management Practices Using Dynamic Modeling. *Journal of Environmental Engineering* 134(8):628-639.
- Stein, E.D. and B. Bernstein. 2008. Integrating Probabilistic and Targeted Compliance Monitoring for Comprehensive Watershed Assessment. *Environmental Monitoring and Assessment* 144:117-129.
- Sutula, M.A., E.D. Stein, J.N. Collins, and A.E. Fetscher. 2006. Key Considerations For Developing a Wetlands Rapid Assessment Method: California's Experience. *Journal of the American Water Resources Association* 42:157-175.
- Stein, E.D., M. Mattson, A.E. Fetscher, and K.J. Halama. 2004. Influence of Geologic Setting on Slope Wetland Classification and Hydrodynamics. *Wetlands* 24:244-260.
- Stein, E.D. and R.F. Ambrose. 2001. Landscape Scale Analysis and Management. of Cumulative Impacts to Riparian Ecosystems: Past, Present, and Future. *Journal of the American Water Resources Association* 37:1597-1614.
- Stein, E.D., F.T. Tabatabai, and R.F. Ambrose. 2000. Wetland Mitigation Banking: A Framework for Crediting and Debiting. *Environmental Management* 26:233-250.
- Stein, E.D. 2000. Watershed-Scale Analysis and Management of Cumulative Impacts. *Proceedings of the American Water Resources Association International Conference on Riparian Ecology and Management in Multi-Land Use Watersheds*, (peer-reviewed proceedings). Portland, Oregon.
- Stein, E.D. and R.F. Ambrose. 1998. A Rapid Impact Assessment Method for Use in a Regulatory Context. *Wetlands* 18:379-392.
- Stein, E.D. and R.F. Ambrose. 1998. Cumulative Impacts of Section 404 Clean Water Act Permitting on the Riparian Habitat of the Santa Margarita, CA Watershed. *Wetlands* 18:393-408.

COLLABORATORS (within the last 36 months):

B. Bledsoe (Colorado State University), R. Ambrose (UCLA), G.M. Kondolf (UCB), M. Cover (CSU Stanislaus), B. Jones (USC), T. Longcore (USC), S. Dark (CSU Northridge), T. Hogue (UCLA), J. Warrick (USGS), J.H. Dorsey (Loyola Marymount University)

THESIS ADVISOR & POSTGRADUATE-SCHOLAR SPONSOR: S. Lopez (UCLA), L. Lackey (UCLA), I. Irvine (UC Irvine), B. Hawley (Colorado State University), B. Haines (Colorado State University), V. Yoon (UCLA), S. Lee (UCLA), D. Cummings (CSULA), L. Morales (CUSLA)

Sean Sumner Anderson

Environmental Science & Resource Management Program
California State University Channel Islands
One University Drive
Camarillo, CA 93012

LAB: (805) 437-8984
FAX: (805) 437-8864
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E-mail: sean.anderson@csuci.edu

Education

2001-2003 Postdoctoral Fellow, Center for Conservation Biology, Stanford University
2002 Ph.D. Organismic Biology Department, UC Los Angeles
1993 B.A. in Ecology and Evolution & in Environmental Studies, UC Santa Barbara

Employment

2011-Present *Associate Professor*, California State University Channel Islands
2005-2011 *Assistant Professor*, California State University Channel Islands
2005 *Research Fellow*, Stanford Institute of the Environment
2003-05 *Research Fellow*, Stanford Center for Conservation Biology
2001-03 *Postdoctoral Fellow*, Stanford Center for Conservation Biology
2000 *Instructor*, UCLA Office of Instructional Development

Professional Recognition

2011 *Nominee* Carnegie Foundation's U.S. Professor of the Year Award
2011 *Finalist* Lynton Award for Scholarly Community Engagement Award
2011 President's Award for Innovation in Teaching and Learning (Inaugural)
2011 Center for Community Engagement Faculty of the Year Award at CSUCI
2011 COMPASS General Public Education/Outreach Training
2009 *Finalist* Maximus Award for Faculty Member of the Year at CSUCI
2009 EU EDEN Award for Sustainable Tourism (to my Turkish Cons'n Project)
2009 Climate Change Action Award (awarded to Ormond Beach Task Force)
2008 Whitley Gold Award (awarded to my Turkish Conservation Project)
2008 Whitley Award (awarded to my Turkish Conservation Project)
2007 Maximus Award for Faculty Member of the Year at CSUCI
2001 Special Faculty Award for Outstanding Service to UCLA
2000 Narbonne Distinguished Scientist Speaker
1997 Best Research Proposal Designation UC-MEXUS

Graduate Students Advised

D. Ojeda (CSUCI), G. Ojeda (CSUCI), T. Huggins (UCLA), B. Fortune (CSUCI), E. Buisson (Universite Paul Cezanne in Marseille, France)

Recent Publications Related to Proposal

Anderson, S., *et al.* *In Review*. A Tale of Two Spills Of A Spill With Two Tails.
BioScience.

Anderson, S. and J. Lambrinos. *In Revision*. Service Learning in Environmental
Disaster Zones: A Tool for Research and Recovery Throughout the Gulf and
Beyond. *BioScience*.

- Anderson, S. *In Submission*. Public perceptions of coastal resources in southern California. *Urban Coast*.
- Sekercioglu, C. and S. Anderson. *In Revision*. Global significance of Turkey's neglected biodiversity. *Biological Conservation*.
- Anderson, S. 2010. Service Learning in New Orleans in *Quick Hits for Service-Learning: Successful Strategies by Award-Winning Teachers* [edited by M. Ange Cooksey]. Indiana University Press.
- Anderson, S., C. Sekercioglu, O. Cirik. 2009. Kuyucuk Lake, Turkey: RIS final Supporting Report. Report to United Nations Ramsar Committee.
- Buisson, E., S. Anderson, K. Holl, E. Corcket, G. Hayes, A. Peteers, and T. Dutoit. 2008. Re-introducing native perennial bunchgrass *Nassella pulchra* to degraded California coastal prairies. *Applied Vegetation Science* 11(2): 195-204.
- Buisson, E., K. Holl, S. Anderson, E. Corcket, G. Hayes, A. Peteers, T. Dutoit. 2006. Effect of Seed Source, Topsoil Removal, and Plant Neighbor Removal on Restoring California Coastal Prairies. *Restoration Ecology* 14(4): 569-577.
- Bailey, S., et al.. 2004. Primary productivity and species richness: relationships among functional guilds, residency groups and vagility classes at multiple spatial scales. *Ecography* 27 (2):207-217.
- Vance, R., R. Ambrose, S. Anderson, T. McPherson, S. MacNeil, and T. Keeney. 2003. Evaluating Sewage Sludge Use as a Soil Amendment in Wetland Restorations I: Plant-based Indicators of Performance. *Restoration Ecology* 11 (2): 155-167.

Synergistic Activities

- 2010-2011 *Founder & Co-Chair*, Gulf Coast Oil Spill Ecotoxicology National Working Group (lead group of 25 scientists with expertise in marine ecology, ecotoxicology, and long-term impacts of oil spills assessing the overall ecotoxicological impacts of the *Deepwater Horizon* oil spill)
- 2010-Present *Creator*, Splatter Spotter (citizen science road kill iPhone app)
- 2010 *Panel Member*, California Sustainable Seafood Initiative
- 2010 *Advisor*, Aquarium of the Pacific's Seafood and Mercury Exhibit
- 2007-Present *Founder & Lead Researcher*, Sustainable Seafood Initiative (multi-disciplinary research, public outreach effort, and undergraduate curriculum development effort to document sustainability of seafood choices available to Southern California consumers).
- 2005-Present *Creator & Lead Instructor, Facilitator*, Service Learning in Post-Katrina New Orleans Course (lead a now multi-campus effort including Louisiana State University, Oregon State University, Loyola Marymount University, and UC San Diego bringing students to coastal Louisiana to learn about the drivers of wetland loss, conduct wetland restoration efforts, and rebuild homes, and food gardens post-Hurricane Katrina)
- 2005-Present *Founding Member*, Channel Islands Interdisciplinary Research Group (group of 21 scholars spanning arts, humanities, social sciences, & natural sciences conducting research in Channel Islands Nat'l Park)

KARINA KAY JOHNSTON

Restoration Ecologist

1 LMU Drive, Pereira Annex, MS:8160, Los Angeles, California, 90045

Phone: (310) 417-3093; Email: kjohnston@santamonicaabay.org

ACADEMIC HISTORY

M.App.Sci. Masters of Applied Sciences – Ecology and Fisheries Biology; James Cook University (JCU); Townsville, Australia. 2008.

B.S. Bachelors of Science – Aquatic Biology, Minor – Geological Sciences; University of California, Santa Barbara (UCSB). 2003.

EMPLOYMENT HISTORY

Restoration Ecologist, Santa Monica Bay Restoration Commission	2008 – present
Teaching Assistant – Experimental Sampling and Design, JCU	2007 – 2008
Tutor – Biological Sciences and Statistics	2007 – 2008
Laboratory Assistant II – Marine Science Institute, UCSB	2005 – 2007
Laboratory Assistant I – Marine Science Institute, UCSB	2003 – 2005
Research Experience for Undergraduates (REU) Scholarship, UCSB	2002

EXPERTISE

As the leader of the scientific baseline assessment program for the Ballona Wetlands Ecological Reserve, Ms. Johnston has extensive experience developing, implementing, and coordinating scientific monitoring programs. She has conducted ecological monitoring and research on three continents (North America, Antarctica, and Australia). She has helped to develop numerous scientific research programs and experiments, including assisting in three Long-Term Ecological Research (LTER) programs. She has led field research teams in wetland, beach, intertidal, and subtidal habitats throughout southern California and is currently developing several long-term monitoring strategies for California wetlands. She has trained graduate, undergraduate, and high school students in subjects ranging from biology to field monitoring and has coordinated and implemented several scientific symposia throughout southern California.

*** Detailed qualifications available upon request. ***

PUBLICATIONS & PEER EDITED DOCUMENTS

Johnston, KK, ED Tuttle, ID Medel, J Dorsey, D Cooper, and SP Bergquist (2011). The Ballona Wetlands Ecological Reserve baseline assessment program: 2009-2010. Report prepared for the California State Coastal Conservancy and California Department of Fish and Game. (*in review*)

Johnston, KK (2010). Ballona Wetlands Science and Research Symposium Proceedings. Hosted by the Santa Monica Bay Restoration Commission and Loyola Marymount University, December 2010; 18pp.

Johnston, KK, J Reciosado, SP Bergquist, and M Abramson (2010). Ballona Creek storm drain water quality memorandum. Memo prepared for the Los Angeles Regional Water Quality Control Board, 9pp.

Johnston, KK, SP Bergquist, and W Binder (2009). Herpetofauna and small mammal surveys of the proposed early action plan, first phase project area. Report prepared for the California Department of Fish and Game, 11 pp.

Johnston, KK (2008). Habitat associations and growth patterns in butterflyfish of Orpheus Island, Australia. Submitted Masters of Applied Science Thesis to James Cook University, Townsville, Australia, 77 pp.

SCIENTIFIC PRESENTATIONS

- Johnston, KK. 2011, "Transition from Baseline Assessment to Long-Term Monitoring". Presentation to the Technical Advisory Committee of the Santa Monica Bay Restoration Commission.
- Johnston, KK* and ED Tuttle. 2011, "Ballona Wetlands Vegetation: Historical, Current, and Applications for Restoration". Southern California Academy of Sciences Annual Conference, Los Angeles, CA; California State Polytechnic University, Pomona. (**Invited speaker*)
- Johnston, KK. 2010, "Application of an EPA 3-Tiered Monitoring Strategy: Ballona Wetlands". Association of National Estuary Programs Meeting, Punta Gorda, Florida; Charlotte County Event and Conference Center.
- Johnston, KK. 2010, "An Information Inundation: Ballona Wetlands Baseline Assessment Program". Ballona Wetlands Science and Research Symposium, Los Angeles, CA; Loyola Marymount University.
- Tuttle, ED, ID Medel, and KK Johnston. 2010, "Methods and Preliminary Results of Vegetation Sampling at the Ballona Wetlands Ecological Reserve". Ballona Wetlands Science and Research Symposium, Los Angeles, CA; Loyola Marymount University. (*poster presentation*)
- Johnston, KK. 2010, "Ballona Wetlands Baseline Assessment Program: Applications for Restoration". California Estuarine Research Society Joint Annual Meeting: Urban Estuaries, San Diego, CA; University of San Diego.
- Johnston, KK. 2010. "Ballona Wetlands Baseline Assessment Program: Applications for Restoration and Regional Monitoring Plans". Restore America's Estuaries, 5th National Conference on Coastal and Estuarine Habitat Restoration, Galveston, TX; Galveston Island Convention Center.
- Johnston, KK. 2010. "Wetland Baseline Monitoring: Applications for Restoration". Southern California Academy of Sciences Annual Conference, Los Angeles, CA; California State University, Los Angeles.
- Leone, D, KK Johnston, and J Dorsey, 2010. "Nutrient Analysis of the Ballona Saltwater Marsh, Estuary, and Creek". Southern California Academy of Sciences Annual Conference, Los Angeles, CA; California State University, Los Angeles. (*poster presentation winner*)
- Johnston, KK. 2010, "Introduction and Development of the Baseline Assessment Program". Presentation to the Technical Advisory Committee of the Santa Monica Bay Restoration Commission.
- Johnston, KK and J Reclosado. 2010, "Ballona Wetlands Baseline Monitoring Program: An Overview". State of the Bay Conference, Los Angeles, CA; Loyola Marymount University. (*poster presentation*)
- Johnston, KK, BE O'Connor, and RJ Schmitt (2006). "UC Coastal Toxicology Program Overview and Summary". UC Toxicology Symposium 2006; San Diego, California. (*poster presentation*)

COMMITTEES & RELEVANT AFFILIATIONS

- Science and Restoration Committee, Friends of Ballona Wetlands
- Technical Advisory Committee, Santa Monica Bay Restoration Commission
- Society of Wetland Scientists, Western Chapter
- Guest Lecturer, Natural Sciences Department, Loyola Marymount University
- Ballona Creek Watershed Task Force

*** References available upon request. ***



SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
A Public Agency for Environmental Research

June 14, 2011

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles CA 90013

RE: 2011 US EPA Wetland Program Development Grant, SMBRA Support Letter

Dear Dr. Luce:

This letter is to confirm our collaboration and support on the Santa Monica Bay Restoration Authority's (SMBRA) application for the 2011 US EPA Wetland Program Development Grant for Application and Assessment of Three-Tiered Monitoring at Southern California Coastal Wetlands.

As you know, our agency has been actively involved in developing integrated wetland monitoring and assessment programs over the past ten years. The proposed project represents an important component that would support both the State's Wetland and Riparian Monitoring and Assessment Program (WRAMP) and the southern California Integrated Wetland Regional Assessment Program (IWRAP). Both these programs rely on development of standard assessment protocols that allow for data comparability and encourage collaboration among partners throughout the region. The proposed project would support these efforts by developing standardized Level 3 protocols for coastal wetlands.

We are excited to collaborate with SMBRC on this project should it be funded. SCCWRP's scientist will work with SMBRC scientists and the Technical Advisory Committee on development and review of protocols, analysis and review of field data, and ensuring consistency with WRAMP and IWRAP.

If you need additional information, please feel free to contact Eric Stein of my staff at erics@sccwrp.org or by phone at 715-755-3233.

Sincerely,

Stephen B. Weisberg, Ph.D.
Executive Director



ENVIRONMENTAL SCIENCE & RESOURCE MANAGEMENT PROGRAM
CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS
ONE UNIVERSITY DRIVE CAMARILLO, CA 93012
(805)437-8984 FAX(805)437-8864
ESRM.CSUCI.EDU

June 15, 2011

Mr. Sean Bergquist
Santa Monica Bay Restoration Commission
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Dear Mr. Bergquist:

I am pleased to collaborate on our proposal *Application and Assessment of USEPA Three-Tiered Monitoring Strategy to Southern California Coastal Wetlands* for an EPA Region 9 FY11 Wetland Program Development Grant. This project will be a valuable compliment to both our existing regional monitoring efforts and our undergraduate and graduate education programs here at CSU Channel Islands. Our monitoring efforts have recently been revised and expanded to better expose our students and regional practitioner communities to the value such robust monitoring programs can bring to managers across the coastal zone. Our collaboration will also complement my existing research exploring the ways in which degradation and fragmentation of coastal wetlands and riparian systems influence the functioning of wider coastal ecosystems and services.

I look forward to collaborating on this project, and am confident it will provide valuable information to help us better manage our remnant coastal wetlands.

Sincerely,

A handwritten signature in black ink that reads "Sean Anderson". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Sean S. Anderson, Ph.D.
Associate Professor
Environmental Science & Resource Mgmt. Prog.
Director Pacific Institute of Restoration Ecology
California State University Channel Islands



June 20, 2011

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles CA 90013

RE: 2011 US EPA Wetland Program Development Grant, SMBRA Support Letter

Dear Dr. Luce:

The Coastal Conservancy is sending this letter of support for the Santa Monica Bay Restoration Authority's (SMBRA) proposal for "Application and Assessment of Three-Tiered Monitoring at Southern California Coastal Wetlands" under the 2011 US EPA Wetland Program Development Grant. This proposal will implement core elements and actions of the State's EPA-approved Wetland Program Plan and the Southern California Wetlands Recovery Project's Integrated Regional Wetland Assessment Program.

The proposed project will build on the long-term efforts led by the Wetlands Recovery Project and supported by the Coastal Conservancy to have wetlands scientists and managers develop and implement standardized monitoring protocols for Southern California wetlands to assess wetland health and provide information for adaptive management of restoration projects. Standardized protocols for site specific (Level 3) monitoring are necessary to provide reproducible and comparable information from various sites throughout the region. The development of a peer-reviewed Level 3 monitoring manual through this program will improve monitoring throughout the region and the state of California, provide a better understanding of coastal wetland health and function, improve restoration planning, design and implementation, and increase the understanding of how to ensure "no net loss" in quality or quantity of coastal wetlands. In addition, this program will verify and validate Level 1 and 2 assessment programs developed by the state of California.

1330 Broadway, 13th Floor
Oakland, California 94612-2517
510-286-4015 Fax: 510-286-0470

The Coastal Conservancy has contributed hundreds of thousands of dollars to support the development of the monitoring framework through its support of the Wetlands Recovery Project and its Science Advisory Panel. In addition, the Coastal Conservancy has a grant to the Santa Monica Bay Restoration Foundation to fund site specific data collection at the Ballona Wetlands. We are pleased that a portion of these funds will be used as a direct match (at least \$170,000) to this proposed project.

The project partners, including the SMBRA, SCCWRP (Dr. Eric Stein) and CSUCI (Dr. Sean Anderson) have extensive technical expertise as well as great depth of knowledge about wetlands health assessment and monitoring. Their participation in wetlands restoration and monitoring work through the Southern California Wetlands Recovery Project and the Technical Advisory Committee of the Santa Monica Bay Restoration Commission, ensures that the work will be collaborative, scientifically sound and will advance the state of wetlands assessment and site specific monitoring in California.

If you have any questions about this letter, please feel free to call me (510) 286-4181.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Small". The signature is fluid and cursive, with the first name "Mary" and last name "Small" clearly distinguishable.

Mary Small
Deputy Executive Officer



State of California – The Natural Resources Agency
DEPARTMENT OF FISH AND GAME
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
<http://www.dfg.ca.gov>

Edmund G. Brown, Jr., Governor
John McCamman, Director



June 16, 2011

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles, CA 90013

RE: 2011 U.S. Environmental Protection Agency (EPA)
Wetland Program Development Grant

Dear Dr. Luce:

The California Department of Fish and Game (CDFG), South Coast Region, is submitting this letter in support of the Santa Monica Bay Restoration Authority (SMBRA) application for the 2011 EPA Wetland Program Development Grant entitled *Application and Assessment of USEPA Three-tiered Monitoring Strategy to Southern California Wetlands*. This program will implement core elements and actions of California's EPA-approved Wetland Program Plan developed by the State Water Quality Control Board and the CDFG.

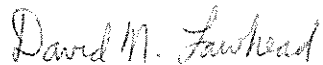
The CDFG is the owner/manager of a number of large coastal wetland complexes in southern California, including some that are currently being planned for extensive restoration efforts and others where restoration has already occurred. In addition, CDFG is a Trustee Agency for the State's natural resources, including wetlands. As such, we are strongly supportive of research efforts related to wetland monitoring that will allow for scientifically-based assessments of current conditions and restoration progress/success. The effectiveness of wetland management actions is closely tied to the understanding of the dynamics of wetland systems, and the cause and effect relationships in the systems, which is a primary focus of Level 3 monitoring and this grant proposal. The grant's proposal to develop a Level 3 monitoring manual that could be applied regionally will assist in planning and monitoring of wetland restorations consistently across a much broader geographic areas than tends to occur currently. It is also anticipated that the development of Level 3 monitoring guidelines and protocols will greatly assist in better understanding the success or failure of wetland restoration projects, and in improving future restoration designs.

The CDFG is currently working with most of the grant partners (SMBRA, SCCWRP, and CSUCI) on other coastal wetland committees or actual restoration projects. These partners have extensive technical expertise and knowledge about wetland health assessments and monitoring. Their combined expertise, as well as access to other

Conserving California's Wildlife Since 1870

wetland experts through the Southern California Wetlands Recovery Project and the Technical Advisory Committee of the Santa Monica Bay Restoration Commission, ensures that the work will be collaborative and scientifically sound. The CDFG has confidence in their ability to fulfill the tasks proposed in the grant application with a high level of quality, and we encourage the EPA to fund this grant application. If you have any questions regarding this letter, please contact me at (858) 627-3997 or dlawhead@dfg.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "David N. Lawhead".

David N. Lawhead
Staff Environmental Scientist



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Acting Secretary for
Environmental Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Edmund G. Bi
Governor Jr

June 17, 2011

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles CA 90013

SUPPORT LETTER FOR THE SANTA MONICA BAY RESTORATION AUTHORITY, 2011 US EPA WETLAND PROGRAM DEVELOPMENT GRANT

Dear Dr. Luce,

The Los Angeles Regional Water Quality Control Board (Regional Board) is pleased to support the Santa Monica Bay Restoration Authority (SMBRA), Southern California Wetlands Recovery Project (SCCWRP) and California State University Channel Islands (CSUCI) in their application for the 2011 US EPA Wetland Program Development Grant in a project titled *Application and Assessment of Three-Tiered Monitoring Strategy to Southern California Coastal Wetlands*.

California and this Regional Board are applying USEPA's Level 1-2-3 framework for monitoring and assessment of wetland resources. Tools have been developed and capabilities have progressed especially in Levels 1 (wetland and riparian inventories) and 2 (rapid assessment). Level 3, intensive assessment to validate rapid methods and diagnose the causes of wetland condition observed in Levels 1 and 2, have not progressed as far. Standardized Level 3 monitoring protocols that result in reproducible and comparable data are needed for southern California wetlands to assess wetland health and provide information for management and restoration efforts.

This proposed project is intended to implement core elements of the State's *Wetland Conservation Work Plan*, developed by the State Water Resources Control Board and the Department of Fish and Game. Development of a peer-reviewed Level 3 monitoring manual will improve monitoring throughout the region and the state of California, provide a better understanding of coastal wetland health and function, improve restoration planning, and increase the understanding of how to ensure "no net loss" of coastal wetlands in quality in addition to quantity. In addition, this proposed project will verify and validate Level 1 and 2 assessment programs developed by the state of California.

California Environmental Protection Agency



Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

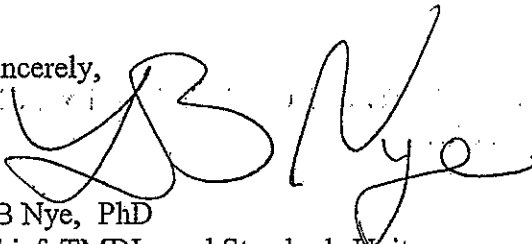
Dr. Shelley Luce
Santa Monica Bay Restoration Authority

2

June 17, 2011

The project partners have extensive technical expertise as well as great depth of knowledge about wetlands health assessment and monitoring. The combined expertise as well as access to other wetlands experts through the Southern California Wetlands Recovery Project and the Technical Advisory Committee of the Santa Monica Bay Restoration Commission, ensures that the work will be collaborative, scientifically sound and will advance the state of wetlands assessment and level three monitoring in California.

Sincerely,



LB Nye, PhD
Chief, TMDLs and Standards Unit

California Environmental Protection Agency

 Recycled Paper

Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.



Los Cerritos Wetlands Authority

**Governing
Board**

June 16, 2011

Gary DeLong,
Chair
City of Long Beach

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles CA 90013

Samuel Schuchat,
Vice Chair
Coastal Conservancy

RE: 2011 US EPA Wetland Program Development Grant, SMBRA Support Letter

Ellery Deaton,
Board Member
City of Seal Beach

Dear Dr. Luce:

Patrick O'Donnell,
Board Member
Rivers and
Mountains
Conservancy

The Cerritos Wetlands Authority (LCWA) is a joint powers authority formed by the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, State Coastal Conservancy and the Cities of Long Beach and Seal Beach. The purpose of the LCWA is to provide for a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of flood protection, habitat protection, restoration and improved water supply, water quality, groundwater recharge and water conservation.

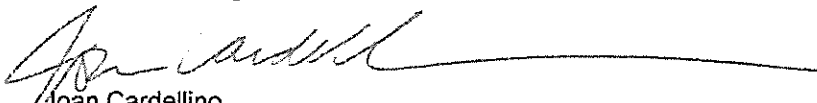
Joan Cardellino
Interim
Executive
Officer

The LCWA fully supports the grant application for the Santa Monica Bay Restoration Authority's (SMBRA) application for the 2011 US EPA Wetland Program Development Grant for Application and Assessment of Three-Tiered Monitoring at Southern California Coastal Wetlands. This program will implement core elements and actions of the State's EPA-approved Wetland Program Plan, developed by the State Water Resources Control Board and the Department of Fish and Game.

Standardized monitoring protocols are needed for southern California wetlands that assess wetland health and provide information for adaptive management and restoration efforts. The LARWQCB uses monitoring data to assess potential impacts to wetlands and to evaluate mitigation program success. Standardized Level 3 (site specific) monitoring protocols that result in reproducible and comparable data would be helpful to our program. Development of a peer-reviewed Level 3 monitoring manual will improve monitoring throughout the region and the state of California, provide a better understanding of coastal wetland health and function, improve restoration planning, design and implementation, and increase the understanding of how to ensure "no net loss" in quality or quantity of coastal wetlands. In addition, this program will verify and validate Level 1 and 2 assessment programs developed by the state of California.

The project partners, including the SMBRA, SCCWRP (Dr. Eric Stein) and CSUCI (Dr. Sean Anderson) have extensive technical expertise as well as great depth of knowledge about wetlands health assessment and monitoring. The combined expertise as well as access to other wetlands experts through the Southern California Wetlands Recovery Project and the Technical Advisory Committee of the Santa Monica Bay Restoration Commission, ensures that the work will be collaborative, scientifically sound and will advance the state of wetlands assessment and level three monitoring in California.

Sincerely,



Joan Cardellino,
Interim Executive Officer

SMBRA BUDGET DETAIL

a. PERSONNEL

POSITION	NUMBER	SALARY	% TIME	WORK YEARS	AMOUNT
Project Manager	1	56,500	85	3	\$ 142,800
Biologist	2	31,000	40	3	\$ 75,400
Intern / Student	2	24,200	40	3	\$ 19,599
Admin Manager	1	50,000	12.5	3	\$19,125
a. Personnel Total					\$ 256,924

b. FRINGE BENEFITS

BASE	\$ 256,924
RATE	35%
b. FRINGE BENEFITS TOTAL	\$ 89,923

c. TRAVEL – List trips planned, destination, dates, and the amounts per trip. Please separate local travel and out-of-state travel.

TRAVEL EXPENSES	AMOUNT
Out-of-State Travel	\$ 2,000
Local Travel	\$ 4,100

Explain: Local travel will involve presenting at scientific conferences, such as the Southern California Academy of Sciences, the California Society for Ecological Restoration, and the California Estuarine Research Society. It will also involve transportation between wetland sites, outreach for the protocol documents, and outreach for the completed manual to Southern California organizations, agencies, and scientists. Out-of-state travel will be to present at scientific conferences, TBD.

Revised 9/20/11 (Removed Fdcosts)

SMBRA BUDGET DETAIL

a. PERSONNEL

POSITION	NUMBER	SALARY	% TIME	WORK YEARS	AMOUNT
Project Manager	1	56,500	85	3	\$ 142,800
Biologist	2	31,000	40	3	\$ 75,400
Intern / Student	2	24,200	40	3	\$ 19,599
a. Personnel Total					\$ 237,799

b. FRINGE BENEFITS

BASE	\$ 237,799
RATE	35%
b. FRINGE BENEFITS TOTAL	\$ 83,230

c. TRAVEL – List trips planned, destination, dates, and the amounts per trip. Please separate local travel and out-of-state travel.

TRAVEL EXPENSES	AMOUNT
Out-of-State Travel	\$ 2,000
Local Travel	\$ 4,100

Explain: Local travel will involve presenting at scientific conferences, such as the Southern California Academy of Sciences, the California Society for Ecological Restoration, and the California Estuarine Research Society. It will also involve transportation between wetland sites, outreach for the protocol documents, and outreach for the completed manual to Southern California organizations, agencies, and scientists. Out-of-state travel will be to present at scientific conferences, TBD.

c. TRAVEL TOTAL: \$ 6,100

Revised 9/9/11

SMBRA BUDGET DETAIL

a. PERSONNEL

POSITION	NUMBER	SALARY	% TIME	WORK YEARS	AMOUNT
Project Manager	1	56,500	85	3	\$ 144,074
Biologist	2	31,000	40	2.75	\$ 68,200
Intern / Student	2	24,200	20	2.5	\$ 12,100
a. Personnel Total					\$ 224,374

b. FRINGE BENEFITS

BASE	\$ 224,374
RATE	35%
b. FRINGE BENEFITS TOTAL	\$ 101,481

(78,531)

c. TRAVEL – List trips planned, destination, dates, and the amounts per trip. Please separate local travel and out-of-state travel.

TRAVEL EXPENSES	AMOUNT
Out-of-State Travel	\$ 2,000
Local Travel	\$ 4,100

Explain: Local travel will involve presenting at scientific conferences, such as the Southern California Academy of Sciences, the California Society for Ecological Restoration, and the California Estuarine Research Society. It will also involve transportation between wetland sites, outreach for the protocol documents, and outreach for the completed manual to Southern California organizations, agencies, and scientists. Out-of-state travel will be to present at scientific conferences, TBD.

c. TRAVEL TOTAL: \$ 6,100

c. TRAVEL TOTAL: \$ 6,100

d. EQUIPMENT – Tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. Applicant's definition of equipment may be used provided the definition at least includes all items previously defined above.

ITEM	#	COST (per unit)	COST (TOTAL)	USE
Tablet PC	2	\$ 2,500.00	\$ 5,000.00	submeter GPS, CRAM software, field data collection
YSI data sonde (6600)	1	\$ 12,000.00	\$ 12,000.00	water quality measurements, continuous monitoring
additional probes for YSI	----	\$ 6,000.00	\$ 6,000.00	Replacement probes for a currently owned sonde
Greenhouse	1	\$ 5,000.00	\$ 5,000.00	seed bank surveys

EQUIPMENT TOTAL: \$ 28,000.00

Purchasing justification: equipment has long-term value and will serve in additional projects and for additional monitoring uses. One sonde will be purchased new (6600), and one (already owned) will be fitted with new probes to make it functional (total of two sondes).

e. SUPPLIES

ITEM	#	COST (per unit)	COST (TOTAL)	USE
digital cameras	2	\$ 500.00	\$ 1,000.00	site photos, electronic photo database
calibration standards for YSI sonde	----	\$ 4,000.00	\$ 4,000.00	to maintain / upkeep YSI probes
Hobo U20 Water Level Loggers	7	\$ 500.00	\$ 3,500.00	continuous water level monitoring for hydrological assessment
Hobo Tidbit Logger	10	\$ 140.00	\$ 1,400.00	continuous water quality (temperature) monitoring
Hobo Pendant Logger	6	\$ 60.00	\$ 360.00	continuous air temperature monitoring
Drying Oven	1	\$ 2,800.00	\$ 2,800.00	dry samples for analyses (biomass, algae, etc)
Misc laboratory supplies	----	----	\$ 5,200.00	invertebrate sampling supplies, jars, sorting materials, etc.

SUPPLIES TOTAL: \$ 18,260.00

Revised 9/20/11

d. EQUIPMENT – Tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. Applicant's definition of equipment may be used provided the definition at least includes all items previously defined above.

ITEM	#	COST (per unit)	COST (TOTAL)	USE
Tablet PC	2	\$ 2,500.00	\$ 5,000.00	submeter GPS, CRAM software, field data collection
YSI data sonde (6600)	1	\$ 12,000.00	\$ 12,000.00	water quality measurements, continuous monitoring
additional probes for YSI	----	\$ 6,000.00	\$ 6,000.00	Replacement probes for a currently owned sonde
Greenhouse	1	\$ 5,000.00	\$ 5,000.00	seed bank surveys

EQUIPMENT TOTAL: \$ 28,000.00

Purchasing justification: equipment has long-term value and will serve in additional projects and for additional monitoring uses. One sonde will be purchased new (6600), and one (already owned) will be fitted with new probes to make it functional (total of two sondes).

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ITEM	#	COST (per unit)	COST (TOTAL)	USE
digital cameras	2	\$ 500.00	\$ 1,000.00	site photos, electronic photo database
calibration standards for YSI sonde	----	\$ 4,000.00	\$ 4,000.00	to maintain / upkeep YSI probes
Hobo U20 Water Level Loggers	7	\$ 500.00	\$ 3,500.00	continuous water level monitoring for hydrological assessment
Hobo Tidbit Logger	10	\$ 140.00	\$ 1,400.00	continuous water quality (temperature) monitoring
Hobo Pendant Logger	6	\$ 60.00	\$ 360.00	continuous air temperature monitoring
Drying Oven	1	\$ 2,800.00	\$ 2,800.00	dry samples for analyses (biomass, algae, etc)
Misc laboratory supplies	----	----	\$ 5,200.00	invertebrate sampling supplies, jars, sorting materials, etc.

SUPPLIES TOTAL: \$ 18,260.00

Revised 9/9/11

d. EQUIPMENT – Tangible, non-expendable, personal property having a useful life of more than one year and an acquisition cost of \$5,000 or more per unit. Applicant's definition of equipment may be used provided the definition at least includes all items previously defined above.

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Misc laboratory supplies	----	----	\$ 5,200.00	invertebrate sampling supplies, jars, sorting materials, etc.

SUPPLIES TOTAL: \$ 18,260.00

f. CONTRACTUAL [List each planned contract separately, type of service to be procured, **proposed procurement method** (i.e. **small purchase, sealed bids, competitive proposals**) and the estimated cost]

ITEM	PROCUREMENT METHOD	TOTAL
California State University, Channel Islands, Dr. Sean Anderson	Sealed bid	\$ 49,600
Southern California Coastal Water Resources Project, Dr. Eric Stein	Sealed bid	\$ 37,400
Ornithological surveys	Sealed bid	\$ 9,000
Wetland Monitoring Surveys at Los Cerritos, Tidal Influence	Sealed bid	\$ 18,000
CPA – Accounting	Continuing contract	\$ 5,993
f. CONTRACTUAL TOTAL		\$ 119,993

g. CONSTRUCTION (N/A)

h. OTHER

ITEM	TOTAL	USE
GSX sub-meter GPS servicing	\$ 300	GPS tracking, point mapping
consumable	\$ 440	printing, publication costs, miscellaneous

OTHER TOTAL: \$ 740.00

i. TOTAL DIRECT COSTS	\$ 519,940
j. INDIRECT COSTS	(BASE \$519,940 x RATE 0%; federal funds only = \$ 0 INDIRECT COSTS)
k. TOTAL PROPOSED COSTS	\$519,940
FEDERAL FUNDS REQUESTED	\$349,940
RECIPIENT SHARE (MATCH)	\$170,000
RECIPIENT SHARE OF TOTAL PROPOSED COSTS	32.7%
FEDERAL SHARE OF TOTAL PROPOSED COSTS	67.3%

Revised 9/20/11

f. CONTRACTUAL [List each planned contract separately, type of service to be procured, **proposed procurement method (i.e. small purchase, sealed bids, competitive proposals)** and the estimated cost]

ITEM	PROCUREMENT METHOD	TOTAL
California State University, Channel Islands, Dr. Sean Anderson	Sealed bid	\$ 49,600
Southern California Coastal Water Resources Project, Dr. Eric Stein	Sealed bid	\$ 37,400
Ornithological surveys	Sealed bid	\$ 9,000
Wetland Monitoring Surveys at Los Cerritos, Tidal Influence	Sealed bid	\$ 18,000
f. CONTRACTUAL TOTAL		\$ 114,000

g. CONSTRUCTION (N/A)

h. OTHER

ITEM	TOTAL	USE
GSX sub-meter GPS servicing	\$ 300	GPS tracking, point mapping
consumable	\$ 440	printing, publication costs, miscellaneous

OTHER TOTAL: \$ 740.00

i. TOTAL DIRECT COSTS	\$ 488,129
j. INDIRECT COSTS	(BASE \$488,129 x RATE 10%; federal funds only = \$ 31,811 INDIRECT COSTS)
k. TOTAL PROPOSED COSTS	\$519,940
FEDERAL FUNDS REQUESTED	\$349,940
RECIPIENT SHARE (MATCH)	\$170,000
RECIPIENT SHARE OF TOTAL PROPOSED COSTS	32.7%
FEDERAL SHARE OF TOTAL PROPOSED COSTS	67.3%

--END--

Revised 9/9/11

f. CONTRACTUAL [List each planned contract separately, type of service to be procured, **proposed procurement method (i.e. small purchase, sealed bids, competitive proposals)** and the estimated cost]

ITEM	PROCUREMENT METHOD	TOTAL
California State University, Channel Islands, Dr. Sean Anderson	Sealed bid	\$ 49,600
Southern California Coastal Water Resources Project, Dr. Eric Stein	Sealed bid	\$ 37,400
Ornithological surveys	Sealed bid	\$ 9,000
Wetland Monitoring Surveys at Los Cerritos, Tidal Influence	Sealed bid	\$ 18,000
f. CONTRACTUAL TOTAL		\$ 114,000

g. CONSTRUCTION (N/A)

h. OTHER

ITEM	TOTAL	USE
GSX sub-meter GPS servicing	\$ 300	GPS tracking, point mapping
consumable	\$ 440	printing, publication costs, miscellaneous

OTHER TOTAL: \$ 740.00

i. TOTAL DIRECT COSTS	\$ 492,955
j. INDIRECT COSTS	(BASE \$492,955 x RATE 10%; federal funds only = \$ 26,985 INDIRECT COSTS)
k. TOTAL PROPOSED COSTS	\$519,940
FEDERAL FUNDS REQUESTED	\$349,940
RECIPIENT SHARE (MATCH)	\$170,000
RECIPIENT SHARE OF TOTAL PROPOSED COSTS	32.7%
FEDERAL SHARE OF TOTAL PROPOSED COSTS	67.3%

--END--

9/20/2011 11:42

SMBRA - EPA SALARIES AND BENEFITS: BILLABLE AND MATCH

Position	Current Salary Year 1	Estimated Year 2	Estimated Year 3	% on Project	Project Total	Grant Billable	Grant Billable \$	Available for Match	Project Match
Project Manager - Jonston	54,500.00	56,500.00	58,500.00	85%	144,075.00	40%	67,800.00	76,275.00	75,000.00
Biologist 1 - Medel	32,000.00	33,000.00	34,000.00	40%	39,600.00	20%	19,800.00	19,800.00	19,000.00
Biologist 2 - Tuffe	30,000.00	31,000.00	32,000.00	40%	37,200.00	20%	18,600.00	18,600.00	18,000.00
Intern 1 - Piechowski (\$10/hr X 15hrs/wk X 52wks)	7,800.00	8,580.00	9,360.00	40%	10,296.00	11%	2,831.40	7,464.60	7,000.00
Intern 1 - TBH (\$10/hr X 15hrs/wk X 52wks)	7,800.00	8,580.00	9,360.00	40%	10,204.11	11%	2,841.70	7,362.41	6,926.00
Administrative Manager (2.45 grant/16 staff FTE=15.3%)	50,000.00	51,000.00	52,000.00	12.5%	19,125.00	12.5%	19,125.00		
Totals					260,500		130,998	129,502	125,926
Benefits - 35%					91,175		45,849	45,326	44,071

Percentages for Budget Detail:

	positions	weighted average	Billable EPA	Matching	Revised Project Total
Project Manager	1	85%	67,800.00	75,000.00	142,800
Biologist	2	40%	38,400.00	37,000.00	75,400
Intern	2	40%	5,673.10	13,926.00	19,599
Admin Manager	1	12.5%	19,125.00	-	19,125
SUB-TOTALS			130,998.10	125,926.00	256,924
FRINGE BEN @ 35%			45,849	44,074	89,923
GRANT TOTALS			176,847	170,000	346,848

CONTRACTUAL:
Accountant - Contracted

1,997.00

1,998.00

1,998.00

5,993.00

Revised
9/20/11

9/12/2011 9:04

SMBRA - EPA SALARIES AND BENEFITS: BILLABLE AND MATCH

Position	Current Salary Year 1	Estimated Year 2	Estimated Year 3	% on Project	Project Total	Grant Billable	Grant Billable \$	Available for Match	Project Match
Project Manager - Jonston	54,500.00	56,500.00	58,500.00	85%	144,075.00	40%	67,800.00	76,275.00	75,000.00
Biologist 1 - Medet	32,000.00	33,000.00	34,000.00	40%	39,600.00	20%	19,800.00	19,800.00	19,000.00
Biologist 2 - Tuffie	30,000.00	31,000.00	32,000.00	40%	37,200.00	20%	18,600.00	18,600.00	18,000.00
Intern 1 - Plechowski (\$10/hr X 15hrs/wk X 52wks)	7,800.00	8,580.00	9,360.00	40%	10,296.00	11%	2,831.40	7,464.60	7,000.00
Intern 1 - TBH (\$10/hr X 15hrs/wk X 52wks)	7,800.00	8,580.00	9,360.00	40%	10,204.11	11%	2,841.70	7,362.41	6,926.00
				Totals	241,375		111,873	129,502	125,926
				Benefits - 35%	84,481		39,156	45,326	44,074

Percentages for Budget Detail:

	positions	weighted average	Billable EPA	Matching	Revised Project Total
Project Manager	1	85%	67,800.00	75,000.00	142,800
Biologist	2	40%	38,400.00	37,000.00	75,400
Intern	2	40%	5,673.10	13,926.00	19,599
	SUB-TOTALS		111,873.10	125,926.00	237,799
	FRINGE BEN @ 35%		39,156	44,074	83,230
	GRANT TOTALS		151,029	170,000	321,029

**KEY CONTACTS FORM**

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name: Dr. Shelley Luce

Title: Executive Director

Complete Address: 1 LMU Drive, Pereira Annex, MS:8160
Los Angeles, CA 90045

Phone Number: (310) 216-9827

Payee: *Individual authorized to accept payments.*

Name: Dr. Shelley Luce

Title: Executive Director

Mail Address: 1 LMU Drive, Pereira Annex, MS:8160
Los Angeles, CA 90045

Phone Number: (310) 216-9827

Administrative Contact: *Individual from Sponsored Program Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc.)*

Name: Marcelo Villagomez

Title: Administrative Director

Mailing Address: 320 W. Fourth Street, Suite #200
Los Angeles, CA 90013

Phone Number: (213) 576-6645

FAX Number: N/A

E-Mail Address: mvillagomez@waterboards.ca.gov

Principal Investigator: *Individual responsible for the technical completion of the proposed work.*

Name: Karina Johnston

Title: Restoration Ecologist / Project Manager

Mailing Address: 1 LMU Drive, Pereira Annex, MS:8160
Los Angeles, CA 90045

Phone Number: (310) 417-3093

FAX Number: N/A

E-Mail Address: kjohnston@santamonicabay.org

Web URL: www.ballonarestoration.org

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

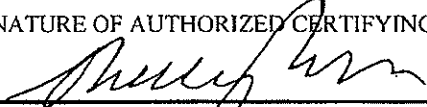
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application. 2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives. 3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain. 4. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain. 5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F). 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), which prohibits discrimination on the | <ol style="list-style-type: none"> basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VII of the Civil Rights Act of 1968 (42 U.S.C. 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application. 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases. 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds. |
|--|---|

<p>9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. 276a to 276a-7), the Copeland Act (40 U.S.C. 276c and 18 U.S.C. 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), regarding labor standards for federally-assisted construction subagreement.</p> <p>10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.</p> <p>11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in flood plains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).</p>	<p>12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.) Related to protecting components or potential components of the national wild and scenic rivers system.</p> <p>13. Will assist the awarding agency in assuring compliance will Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).</p> <p>14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.</p> <p>15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) Pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.</p> <p>16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.) Which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.</p> <p>17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."</p> <p>18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.</p>
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SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	TITLE Dr. Shelley Luce, Executive Director	
APPLICANT ORGANIZATION Santa Monica Bay Restoration Authority		DATE SUBMITTED 07-20-11

EPA Project Control Number

CERTIFICATION REGARDING LOBBYING

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

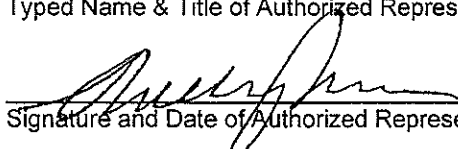
(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

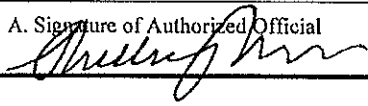
Dr. Shelley Luce, Executive Director

Typed Name & Title of Authorized Representative


Signature and Date of Authorized Representative

**Preadward Compliance Review Report for
All Applicants and Recipients Requesting EPA Financial Assistance**

Note: Read instructions on other side before completing form.

I. Applicant/Recipient (Name, Address, State, Zip Code).		DUNS No.
Santa Monica Bay Restoration Authority, 320 W. 4th Str., Ste 200; Los Angeles, CA 90		557382996
II. Is the applicant currently receiving EPA assistance? N/A		
III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7. See instructions on reverse side.) N/A		
IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective action taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7. See instructions on reverse side.) N/A		
V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3)) N/A		
VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below. Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b). Yes <input type="checkbox"/> No <input type="checkbox"/> b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. § 7.70) applies. Yes <input type="checkbox"/> No <input type="checkbox"/>		
VII.* Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its programs or activities? (40 C.F.R. § 5.140 and § 7.95) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
a. Do the methods of notice accommodate those with impaired vision or hearing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
c. Does the notice identify a designated civil rights coordinator? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
VIII.* Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. § 7.85(a)) N/A		
IX.* Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166) Yes <input checked="" type="checkbox"/>		
X.* If the applicant/recipient is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator. Marcelo Villagomez, Administrative Manager, 320 W. 4th St, 200, LA.		
XI* If the applicant/recipient is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet address for, or a copy of, the procedures. Yes <input checked="" type="checkbox"/>		
For the Applicant/Recipient		
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.		
A. Signature of Authorized Official 	B. Title of Authorized Official Dr. Shelley Luce, Executive Director	C. Date 07-20-11
For the U.S. Environmental Protection Agency		
I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.		
A. Signature of Authorized EPA Official See ** note on reverse side	B. Title of Authorized EPA Official	C. Date

CD-00T73001-0

8-25-11

Instructions for EPA FORM 4700-4 (Rev. 04/2009)

General

Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment).

Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities.

Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities.

The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission.

Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution.

40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972.

40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973.

The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items

"Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25.

"Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25.

"Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed.

"Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability.

Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission.

If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable."

In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification.

* Questions VII – XI are for informational use only and will not affect an applicant's grant status. However, applicants should answer all questions on this form. (40 C.F.R. Parts 5 and 7).

** Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

Approval indicates, in the reviewer's opinion, questions I – VI of Form 4700-4 comply with the preaward administrative requirements for EPA assistance.

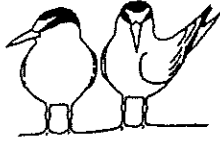
"Burden Disclosure Statement"

EPA estimates public reporting burden for the preparation of this form to average 30 minutes per response. This estimate includes the time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to U.S. EPA, Attn: Collection Strategies Division (MC 2822T), Office of Information Collection, 1200 Pennsylvania Ave., NW, Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

The information on this form is required to enable the U.S. Environmental Protection Agency to determine whether applicants and prospective recipients are developing projects, programs and activities on a nondiscriminatory basis as required by the above statutes and regulations.

11-22-8

0-10025700-10



Friends of Ballona Wetlands

www.ballonafriends.org

June 15, 2011

Dr. Shelley Luce
Santa Monica Bay Restoration Authority
320 W. 4th St., Suite 200
Los Angeles CA 90013

RE: 2011 US EPA Wetland Program Development Grant, SMBRA Support Letter

Board of Directors

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Dear Dr. Luce:

The Friends of Ballona Wetlands is pleased to submit this letter of support for the Santa Monica Bay Restoration Authority's (SMBRA) application for the 2011 US EPA Wetland Program Development Grant for Application and Assessment of Three-Tiered Monitoring at Southern California Coastal Wetlands. This program will implement core elements and actions of the State's EPA-approved Wetland Program Plan, developed by the State Water Resources Control Board and the Department of Fish and Game.

Standardized monitoring protocols are needed for southern California wetlands that assess wetland health and provide information for adaptive management and restoration efforts. The LARWQCB uses monitoring data to assess potential impacts to wetlands and to evaluate mitigation program success. Standardized Level 3 (site specific) monitoring protocols that result in reproducible and comparable data would be helpful to our program. Development of a peer-reviewed Level 3 monitoring manual will improve monitoring throughout the region and the state of California, provide a better understanding of coastal wetland health and function, improve restoration planning, design and implementation, and increase the understanding of how to ensure "no net loss" in quality or quantity of coastal wetlands. In addition, this program will verify and validate Level 1 and 2 assessment programs developed by the state of California.

The project partners, including the SMBRA, SCCWRP (Dr. Eric Stein) and CSUCI (Dr. Sean Anderson) have extensive technical expertise as well as great depth of knowledge about wetlands health assessment and monitoring. The combined expertise as well as access to other wetlands experts through the Southern California Wetlands Recovery Project and the Technical Advisory Committee of the Santa Monica Bay Restoration Commission, ensures that the work will be collaborative, scientifically sound and will advance the state of wetlands assessment and level three monitoring in California.

Sincerely,

Lisa Fimiani
Executive Director

DEPARTMENT OF FISH AND GAME
and
STATE WATER RESOURCES CONTROL BOARD

FIVE YEAR COORDINATED WORK PLAN
for
**WETLANDS CONSERVATION PROGRAM
DEVELOPMENT**

April 11, 2011

Introduction

This five year coordinated work plan has been developed by staff of the Department of Fish and Game (DFG) and the State Water Resources Control Board (State Water Board) to carry out each agency's directives regarding wetland conservation program development. The planning activities described in this work plan will develop each agency's wetland program in accordance with their respective agency's guidance and policies. (See Attachment A for a summary of past program accomplishments.)

1. Overall Goal Statement

Through this plan, our goal is to:

*Increase the abundance and diversity of California's wetlands and riparian areas,
and to sustain and enhance the delivery of ecosystem services.*

2. General Background

2.a. Department of Fish and Game

Several initiatives are underway in California to better coordinate, monitor and regulate activities that may impact California's wetlands, and as trustee for the State's fish and wildlife resources, DFG needs to play a role in these efforts.

In 2008, the California Wetlands Monitoring Workgroup (CWMW) was convened to better coordinate the wetland monitoring activities of State and federal agencies involved in wetland monitoring and regulation. Staff from the DFG Water Branch co-chaired this group and provided technical input on a variety of monitoring and policy topics including the development and use of the California Rapid Assessment Method (CRAM) and CRAM's use in DFG programs such as the Lake and Streambed Alteration program.

Additionally in 2008, the State Water Board began development of a Wetland and Riparian Area Protection Policy (Policy) that is intended to better regulate wetland resources of California. In its initial stages, the Policy is focused on defining wetlands (e.g., a consistent State Water Board definition), development of a wetland classification system, wetland monitoring, and possibly definitions of riparian areas, stream bank and stream bed. DFG has participated in the development of this Policy through the State Water Board's Interagency Coordinating Committee (ICC) and the CWMW. DFG has been represented by Water Branch with the assistance of the Habitat Conservation and Planning Branch, Wildlife and Fisheries Branches.

Since the completion of the State of the State's Wetlands Report in 2010, DFG has further begun to clarify and specify its role in the identification, monitoring, assessment, and protection of California wetlands. Through the actions described below, DFG will continue to help coordinate wetland monitoring in the State, improve consistency among wetland-related regulatory efforts, identify and map the wetland resources of the State, and continue wetlands conservation, management and restoration activities in cooperation with partner agencies and organizations statewide.

2.b. State Water Resources Control Board

State Water Board will take two major actions over the next five year planning period to support our goal. We will implement efforts to strengthen the dredge and fill regulatory program and also develop a wetland assessment and monitoring framework (assessment framework) that all State Water Board Water Quality programs will adopt. The State Water Board's adoption of the Phase 1 Wetland and Riparian Protection Policy (Policy) will initiate both of these measures.

State Water Board will develop the Policy in three phases. The Policy will include a wetland definition and related delineation method, an assessment framework, and water quality standards protective of wetlands and riparian areas. The assessment framework will be coordinated through the California Wetlands Monitoring Workgroup of the California Water Quality Monitoring Council.

Phase 1 is scheduled for adoption late 2012. The State Water Board recently posted a Notice of EIR Preparation and scoping meetings (January 5, 2011) for Phase 1.

Phase 1 will lay the foundation for subsequent Phases, and include:

- A wetland definition that reliably defines the diverse array of California wetlands and incorporates the United States Army Corps of Engineers' (USACE) delineation methodology to the extent feasible; and

- A regulatory mechanism for the discharge of dredge and fill material to all state waters, including wetlands, based on Clean Water Act Section 404 (b)(1) Guidelines (40 CFR parts 230-233, inclusive), and the federal rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR part 325 and 332, and 40 CFR part 230).
- An assessment method for collecting water quality and wetland data to monitor progress toward water quality and wetland protection and to evaluate program development.

Phase 2 will expand the scope of the policy to protect wetlands from all other activities potentially impacting water quality, and include:

- New and/or revised beneficial use definitions;
- Water quality objectives to support those beneficial uses;
- A program of implementation to apply the water quality objectives, as necessary, to protect all waters, including wetlands, and their water quality functions for all waste discharges (e.g. wastewater and stormwater).

Phase 3 will identify, protect, and promote the restoration of riparian areas and their functioning to support water quality and beneficial uses, and include:

- A definition for riparian areas;
- New and/or revised beneficial use definitions;
- Water quality objectives to support those beneficial uses;
- A program of implementation to achieve the water quality objectives to protect riparian area water quality related functions.

2.c. Wetland and Riparian Area Monitoring Program

All activities of this work plan related to assessment and monitoring will be consistent with the Wetland and Riparian Area Monitoring Program (WRAMP), developed by the CWMW and endorsed by the California Water Quality Monitoring Council (Monitoring Council) in June 2010.

CWMW continues work towards agreement on standardized aquatic resource mapping and definitions, monitoring and assessment approaches, and information collection and reporting. Standardization will provide the underpinnings for WRAMP, which is a coordinated statewide wetland assessment strategy that allocates monitoring and assessment functions to various state agencies including the State Water Board and Regional Water Quality Control Boards (Water Boards collectively), and Department of Fish and Game. The vision is that all departments within Cal/EPA and the Natural Resources Agency will implement the WRAMP.

The State Water Board Surface Water Ambient Monitoring Program (SWAMP) will provide support tools to all workgroups of the Monitoring Council. This includes a rigorous quality assurance/quality control program, the California Environmental Data Exchange Network (CEDEN) to share ambient water quality data between Water Board programs and with other agencies and organizations, and a system of Regional Data Centers to assist data generators with data comparability and management. SWAMP was envisioned to coordinate all water quality monitoring conducted by the State and Regional Boards to assess attainment of all core beneficial uses in all waterbody types.

2.c.(i). WRAMP Tenets

The WRAMP is based on the following tenets:

- Report to the public and State agencies answers to three basic questions: (1) Where are the wetlands and riparian areas, (2) what is their health status, and (3) are the policies, programs, and projects to restore and protect wetlands and riparian areas working?
- Minimize new program costs by leveraging existing programs and projects through their use of standardized core methodologies for mapping, assessment, quality assurance, data management, and reporting.
- Use the peer-review process of the State Water Board to help assure the scientific credibility of core methodologies used in ambient assessment and regulatory project assessment.
- Provide a standardized base map of California's wetlands and other aquatic resources, maintained by DFG, for use by all local, state, and federal agencies.
- Integrate fully with SWAMP allowing implementation of WRAMP through regional programs served by the CEDEN Regional Data Centers and delimited by the boundaries of its Regional Water Quality Control Boards (Regional Water Board).
- Allow these regional programs to supplement the core methodologies to meet special local and regional information needs.
- Remain coordinated statewide through CWMW, a sanctioned workgroup of the Monitoring Council, on an ongoing basis.

3. Actions and Activities to Support the Overall Goal

3.a. Plan Organization

This work plan outlines specific activities over the next five years that are related to U.S Environmental Protection Agency's core elements of an effective state and tribal wetland program:

Regulation
Monitoring and Assessment
Water Quality Standards for Wetlands

Voluntary Restoration and Protection

Yearly activities will focus on selected core program elements; not all elements will be addressed in any given year.

3.b. Watershed Approach

This work plan will integrate the use of the watershed approach in all core areas. The approach is applied to leverage each of the core activities that protect and restore wetlands and riparian areas toward attainment of community-based environmental goals. Ecosystem restoration and management are considered components of protection.

More specifically, the watershed approach considers the abundance, locations, types and condition of aquatic resources in a watershed and how those factors contribute in the support of beneficial uses, fish and wildlife habitat and attainment of watershed goals. Consideration also is given to understanding historic and potential aquatic resource conditions, past and projected aquatic resource impacts in the watershed, and terrestrial connections between aquatic resources. Use of the watershed approach is intended to sustain or restore the natural abundance, the diversity and the ecological condition of aquatic resources in a broad landscape context. The watershed approach also is flexible in its recognition that ecosystem enhancement may be the environmentally preferred management practice in some highly disturbed, heavily engineered or rapidly changing environmental settings. Reporting on a watershed basis better informs land use decision making.

3.c. DFG Specific Actions

Table 1: DFG Planned Actions and Target Dates

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Regulation			
1. CWMW	Continue participation as co-chair of the CWMW. DFG shall be represented by staff from the Water Branch and Habitat Conservation Planning Branch.	Meeting Minutes	2010 and ongoing
2. ICC	Continue participation in the ICC. DFG shall be represented by staff from the Water Branch and the Habitat Conservation Planning Branch. Participation in the program is necessary as efforts from the Policy will likely affect the DFG Lake and Streambed Alteration Program.	Meeting Minutes	2010 and ongoing
Core Element: Monitoring, Assessment, and Reporting			
3. Map Development	Continue participation in the development of maps, including the development of the wetland classification system, through the CWMW. DFG shall be represented by staff from the Biogeographic Data Branch.	Meeting Minutes	2010 and ongoing
4. Map Management	Manage the State's wetland and other aquatic resource maps. Management shall be done through the DFG Biogeographic Data Branch. All data/metadata will be available for public viewing and downloading thru DFG's BIOS website at bios.dfg.ca.gov and through the establishment of web services and/or other data exchange mechanisms. Links to DFG's BIOS website can be made from any other organizations website.	Wetland and aquatic resource maps, web service and data exchange mechanisms	2015
5. Reporting	In collaboration with other agencies through the CWMW, report to decision makers and the public via the California Wetlands Portal (www.californiawetlands.net) answers to three basic questions: (1) "Where are the wetlands and riparian areas," (2) "What is their health status," and (3) "Are the policies, programs, and projects to restore and protect wetlands and riparian areas working?"	My Water Quality Portal Home Page	2010 and ongoing

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 1: DFG Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Voluntary Restoration and Protection			
6. Wetland Conservation Programs	Continue active engagement in wetlands conservation, management and restoration activities throughout the State through participation on the management boards of the Central Valley and San Francisco Bay Joint Ventures and associated working groups and the Southern California Wetlands Recovery Project through the Department's Wildlife Branch and Regions.	Meeting minutes and project reports, publications, and updates	2010 and ongoing
7. Wetland Acquisition and Restoration	Continue working to actively acquire and restore wetlands in cooperation with partner agencies and organizations statewide.	Agency updates, project reports and/or publications	2010 and ongoing

*** Starred items are projects funded by USEPA

Table 2: Web links to DFG Table 1 Work Products

TABLE 1 ITEM NUMBER	NAME	WEB LINK
3.	Biogeographic Data Branch	http://www.dfg.ca.gov/biogeodata/
4.	Biogeographic Information and Observation System (BIOS) website	http://www.bios.dfg.ca.gov
5.	Information Sharing	http://www.CaWaterQuality.net
6. 7.	Comprehensive Wetland Habitat Program	http://www.dfg.ca.gov/lands/wetland/

3.d. State Water Board Specific Actions

Table 3: State Water Board Planned Actions and Target Dates

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Regulation			
1. Develop Definitions***	Develop draft definitions for wetland areas, riparian areas and stream channels.	Technical Advisory Team Memos	2010 (wetland definition only other work on-going).
2. Phase 1 Policy***	Draft Phase 1 Wetland Area Protection Policy document to include a wetland definition, a delineation method and an assessment and monitoring framework.	Draft Policy for public review	Summer 2011

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 3: State Water Board Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Regulation			
3. Phase 1 Regulations	Draft Phase 1 regulations for the discharge of dredge and fill material that complement the USEPA/Corps' 404 (b)(1) Guidelines and the federal Compensatory Mitigation Rule.	Draft Dredge and Fill Regulations for public review	Summer 2011
4. Coordinate Policy/Reg Development with Regional Water Boards***	Coordinate Phase 1 efforts with all Regional Water Boards, and specifically with the San Francisco Bay Regional Water Quality Control Board's (Region 2's) proposed Stream and Wetland Systems Protection Policy Basin Plan amendments.	Meeting Minutes	Ongoing monthly
5. Watershed Approach***	Draft conceptual regulatory decision framework for applying the watershed approach to mitigation decisions. Using actual proposed projects, pilot the conceptual decision framework for applying the watershed approach in mitigation projects.	Regulatory Decision Framework for Watershed Approach	Fall 2011
6. Advanced Mitigation Planning***	Collaborate with federal and state agencies in developing methods for evaluating and locating "advanced mitigation" sites.	Regulatory Decision Framework for Advanced Mitigation Planning	Summer 2012
7. Mitigation Bank RT Participation	Develop means for State Water Board participation on mitigation bank review teams in collaboration with other participating federal and state agencies.	Agency MOU	Fall 2011
8. Phase 1 EIR Drafting Process***	Prepare environmental documents necessary for the public review of the Phase 1 Policy and regulations. The environmental documents include an Initial Study and a Program EIR. Hold public workshops and CEQA scoping meetings to obtain public input on the Policy, regulations, and scope of the EIR.	Draft IS/EIR and CEQA scoping meeting materials	Summer 2011
9. Phase 1 EIR Public Review	Post draft EIR, Policy and regulations for public comment and respond to comments. Hold public hearings on draft Policy, regulations and EIR. Respond to comments, and make any necessary revisions.	Draft EIR	Fall 2011

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 3: State Water Board Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Regulation			
10. State Water Board Adoption of Phase 1	Obtain State Water Board Approval of Phase 1 Policy and regulations.	Policy and Regulations	2012
11. Phase 1 Implementation	Develop Phase 1 Implementation Plan to transfer Policy to the Regional Water Boards. Develop and print Phase 1 training manuals and implementation guidance materials. Roll out Phase 1 Implementation Plan to transfer Policy to Regional Boards.	Phase 1 Implementation Plan	2012
Core Element: Monitoring, Assessment, and Reporting			
12. Online Electronic Application with Mapping Tool***	Develop an online water quality certification application form for 401 permits that will allow applicants to map waters and riparian areas impacted by the project and proposed mitigation sites using online mapping tools. Provide that the data will be transferred to the State Water Boards CIWQS database automatically. Develop this program for project management allowing Water Board staff to automate certifications, track project milestones, file documents, and communicate with project applicants.	Online Application available for pilot Water Boards	2011
13. CRAM Calibration***	Continue scientific efforts through CWMW to calibrate and verify level 2 CRAM as the core method for cost-effective monitoring of wetland and riparian condition. A set of more intensive Level 3 multi-metric indices of condition will be developed for CRAM calibration, and to provide quality assurance control for wetland and riparian surveys of ambient condition. A network of reference wetland and riparian sites will be developed over time to support multi-metric development and CRAM refinement.	CRAM modules	2009 and ongoing

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 3: State Water Board Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Monitoring, Assessment, and Reporting			
14. CRAM Training***	Continue level 2 CRAM training statewide and make the training available through the State Water Board's Training Academy.	CRAM Training publications	2009 and ongoing
15. CRAM modules***	Continue scientific efforts through CWMW to expand CRAM for additional wetland types.	CRAM modules	2009 and ongoing
16. Level 1 Mapping	Research, develop and coordinate use of standard methods for wetland, stream, and riparian mapping, data collection, data management and data analysis through CWMW. Ensure that these methods comply with developing State policies, and are compatible with the California Environmental Data Exchange Network (CEDEN) system and its network of Regional Data Centers.	Level 1 Maps	2009 and ongoing
17. QA/QC for Level 2 data	Implement SWAMP recommended Quality Assurance and Data Management Programs to support the accurate collection and reporting of all project data.	Wetland data QA/QC Guidelines	2015
18. Regional Capacity Building	Ensure that state programs support the regional approach to tool development and data collection. Provide adequate support for regional CRAM/Audit teams and CEDEN Regional Data Centers to ensure regional capacity for state programs and continued integration with regional partners, especially Regional Water Boards.	Regional Capacity Building Strategy Plan	2015
19. WRAMP Partnership Support	Provide support necessary for partner agency to adopt and integrate wetland assessment and inventory tools and data into regulatory and grant programs.	Regional "WRAMP Implementation Plan	2015
20. Riparian Area Assessment/-/ Data Collection***	Expand tool development and initiate field data collection to support riparian policy objectives of Regional and State Water Boards as defined in Phase 3 of Policy.	Technical Memorandum No. 3: Landscape Framework for Wetlands and Other Aquatic Areas	2010 and ongoing

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 3: State Water Board Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Monitoring, Assessment, and Reporting			
21. Data Management	Ensure that all data are secured on existing State Water Board data systems or at one or more of the CEDEN Regional Data Centers.	Wetland Data Management Guidelines	2015
22. Metadata Exchange	Make these data and metadata available to other agencies through the establishment of web services and/or other data exchange mechanisms.	Wetland Metadata Exchange Protocols	2015
23. Information Sharing	In collaboration with other agencies through the CWMW, report to decision makers and the public via the California Wetlands Portal (www.californiawetlands.net) answers to three basic questions: (1) "Where are the wetlands and riparian areas," (2) "What is their health status," and (3) "Are the policies, programs, and projects to restore and protect wetlands and riparian areas working?"	My Water Quality Portal Home Page	2010 and ongoing
Core Element: Water Quality Standards			
24. Phase 2 Wetland Water Quality Objectives	Develop Phase 2 Policy statewide wetland beneficial uses and water quality objectives, and an implementation program.	Draft Wetland Water Quality Objectives Staff Report	2012
25. Phase 2 Environmental Document	Develop the environmental document and staff report to bring Phase 2 forward for adoption by the State Water Board as an amendment to the Wetland Protection Policy in 2014.	Draft Wetland Water Quality Environmental Document	2013
26. Phase 2 Stakeholder Review	Hold stakeholder meetings on Phase 2 wetland beneficial uses, water quality objectives and implementation program.	Stakeholder Meeting Agendas	2013
27. Phase 2 CEQA Scoping	Hold public workshops and CEQA scoping meetings to obtain public input on Phase 2 wetland beneficial uses, water quality objectives and implementation program (Policy amendment) and the scope of the EIR.	CEQA Scoping Meeting Materials	2013

*** Starred items are projects funded by USEPA

Wetland Conservation Plan

Table 3: State Water Board Planned Actions and Target Dates Continued

ACTION ITEM	DESCRIPTION	PRODUCT	YEAR COMPLETED?
Core Element: Water Quality Standards			
28. Phase 2 EIR Public Review	Post draft EIR and Policy amendment for public comment and respond to comments. Hold public hearings on Policy amendment and EIR. Respond to comments, and make any necessary revisions.	Draft EIR and Policy Amendment-Wetland WQOs	2014
29. State Water Board Adoption of Phase 2	Obtain State Water Board approval of Phase 2 Policy amendment for wetland beneficial uses, water quality objectives and implementation program.	Amended Wetland Area Protection Policy with WQOs	2014
30. Phase 2 Implementation Plan	Develop Phase 2 Implementation Plan to transfer wetland beneficial uses and water quality objectives to Regional Water Boards. Develop Phase 2 training manuals and implementation guidance materials. Roll out Phase 2 Implementation Plan to transfer wetland beneficial uses and water quality objectives to Regional Water Boards.	Phase 2 Implementation Plan	2015
31. Phase 3 Riparian Area Related Water Quality Objectives	Begin environmental documents and staff report to bring Phase 3 forward for adoption by the State Water Board.	Draft Phase 3 staff report	2015
32. Phase 3 Stakeholder Review	Hold stakeholder meetings on Phase 3.	Stakeholder meeting agendas	2015

*** Starred items are projects funded by USEPA

Table 4: Web links to State Water Board Table 3 Work Products

TABLE 1 ITEM NUMBER	NAME	WEB LINK
1.	Wetland Definition	http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/tatmemo2_062509.pdf
13.	CRAM Development	http://www.cramwetlands.org/
8.	Phase 1 EIR Drafting Process	http://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.shtml
20.	Riparian Area Assessment/-Data Collection	http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/wrapp/tatmemo3_061610.pdf
23.	Information Sharing	http://www.CaWaterQuality.net

4. Annual Plan Review

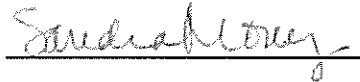
The Department of Fish and Game and the State Water Board will annually review and discuss progress towards achieving the goals of this joint agency wetlands conservation program for California. The developments on the specific actions of this plan will be updated and reported. Adjustments to this program will be made as needed and in coordination with the California Wetlands Monitoring Workgroup.

5. Plan Authorization

We, the undersigned, have reviewed this Wetlands Conservation Program Workplan and direct our respective staff to work cooperatively towards its development and implementation.



Victoria A. Whitney, Deputy Director
Division of Water Quality
State Water Resources Control Board



Sandra Morey, Deputy Director
Department of Fish and Game
Natural Resources Agency

Summary of Past Work

A. Department of Fish and Game

Table 4 DFG Summary of Past Work

PAST STATE ACTION	EPA CORE ELEMENT	SUPPORT OF CURRENT ACTION ITEM	PRODUCT	YEAR COMPLETED?
1. State of the State's Wetlands Report	Monitoring & Assessment	3.c., Table 1, Item 5	10 year Report	2010
2. Develop Wetland Definition	Regulatory	3.c., Table 1, Item 3	Draft State Water Board Wetland Definition	2010

Table 5: Web links to Table 4 Work Products

TABLE 4 ITEM NUMBER	NAME	WEB LINK
1.	California State of the State's Wetlands Report	http://resources.ca.gov/ocean/SOSW_report.pdf
2.	Wetland Definition	http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/tatmemo2_062509.pdf

B. State Water Resources Control Board

Table 6 State Water Board Summary of Past Work

PAST STATE ACTION	EPA CORE ELEMENT	SUPPORT OF CURRENT ACTION ITEM	PRODUCT	YEAR COMPLETED?
1. Develop Wetland Definition	Regulatory	3.d. Table 3, Item 1.	Draft State Water Board Wetland Definition	2010
2. CRAM Development	Monitoring, Assessment, Reporting	3.d. Table 3, Item 13-15	CRAM Modules	2009 and ongoing

Table 7: Web links to Table 6 Work Products

TABLE 1 ITEM NUMBER	NAME	WEB LINK
1.	Wetland Definition	http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/tatmemo2_062509.pdf
13.	CRAM	http://www.cramwetlands.org/

ACRONYMS

<i>BIOS</i>	Biogeographic Information and Observation System
<i>CEDEN</i>	California Environmental Data Exchange Network
<i>CEQA</i>	California Environmental Quality Act
<i>CFR</i>	Code of Federal Regulations
<i>CIWQS</i>	California Integrated Water Quality System
<i>CRAM</i>	California Rapid Assessment Method
<i>CWMW</i>	California Wetland Monitoring Workgroup
<i>DFG</i>	California Department of Fish and Game
<i>EIR</i>	Environmental Impact Report
<i>ICC</i>	Interagency Coordinating Committee
<i>IS</i>	Initial Scoping
<i>MONITORING COUNCIL</i>	California Water Quality Monitoring Council
<i>POLICY</i>	Wetland and Riparian Protection Policy
<i>REGIONAL WATER BOARD</i>	Regional Water Quality Control Boards
<i>STATE WATER BOARD</i>	State Water Resources Control Board
<i>SWAMP</i>	Surface Water Ambient Monitoring Program
<i>WRAMP</i>	Wetland and Riparian Area Monitoring Program

Application and Assessment of USEPA Three-Tiered Monitoring Strategy to Southern California Coastal Wetlands

Track Two: U.S. E.P.A, Region 9 - FY11 Wetland Program Development Grant

Core Elements: 1) Monitoring and Assessment, and 2) Restoration and Protection

Actions from EPA-Approved Wetland Program Plan (WPP):

Five Year Coordinated Work Plan for Wetlands Conservation Program Development (April 11, 2011), developed by the California Department of Fish and Game and State Water Resources Control Board.

California's WPP Actions:

Develop an assessment method for collecting water quality and wetland condition data to monitor progress toward water quality and wetland protection goals and to evaluate program development.

Applicant: Santa Monica Bay Restoration Authority, DUNS # 557382996

Key Personnel and Contact Information:

Program Director: Sean Bergquist, SMBRA; sbergquist@santamonicabay.org, (310) 961-4891

Science Lead: Dr. Eric Stein, SCCWRP; erics@sccwrp.org, (714) 755-3233

Research Lead: Dr. Sean Anderson, CSUCI; sanderson@csuci.edu, (805) 437-8984

Restoration Ecologist: Karina Johnston, SMBRA; kjohnston@santamonicabay.org, (310) 417-3093

Geographic Location: California. Southern California Coastal, Hydrologic Unit: 1807

Project Cost: Total: \$520,000; **Federal dollars requested:** \$350,000; Cost share/match: \$170,000

Abstract:

Monitoring and assessment strategies developed by the State of California and USEPA universally call for coordinated and consistent approaches to monitoring and assessment. Unfortunately, our ability to meet this goal is limited. Although we have made progress over the last several years in developing standardized rapid (i.e. Level 2) assessment methods, there has been much less attention paid to standardized intensive (i.e. Level 3) assessment methods. Intensive assessment methods provide information on ecological function and process, are more diagnostic of restoration performance and regulatory compliance, and are important as a validation measure for rapid assessment methods. The lack of consistent approaches to intensive assessment limits our ability to share information between projects, precludes use of Level 3 data in ambient monitoring, and fosters redundancy as each project develops its own protocols. With eight major coastal wetland restoration projects currently being planned along the southern California Bight, timing is optimal for development and testing of standardized Level 3 assessment procedures. This program would accomplish that goal by compiling and analyzing existing assessment procedures, developing proposed standardized approaches in coordination with technical advisors, exploring the covariance between these new Level 3 protocols and existing Level 2 (i.e. CRAM) assessment tools, and developing protocol documents and training materials to facilitate information transfer to other projects.

Project Description

1. Program Priorities - Track Two

The State of California has developed an EPA-approved Wetland Program Plan (WPP) (Attachment A): the Department of Fish and Game and State Water Resources Control Board Five Year Coordinated Work Plan for Wetlands Conservation Program Development (2011). **The goal of California's WPP is to increase the abundance and diversity of California's wetlands and riparian areas, and to sustain and enhance the delivery of ecosystem services.**

This program carries out actions in California's WPP, (1) development of an assessment method for collecting water quality and wetland data to monitor progress toward water quality and wetland protection, and (2) evaluation of program development. This program focuses on the implementation of two core elements described in the EPA's *Core Elements of an Effective State and Tribal Wetland Program Framework* (CEF), (1) monitoring and assessment, and (2) restoration and protection.

This program will demonstrate and refine the application of USEPA's Level 1-2-3 framework for monitoring and assessment of coastal wetlands. To date, regional and state-wide monitoring programs have focused on Level 1 and 2 monitoring. This program will develop Level 3 monitoring protocols through a peer-reviewed process, and apply these protocols to assess a series of coastal wetlands. Opportunities to refine protocols will be explored throughout the process. In addition, Level 3 monitoring results will be used to assess the effectiveness and accuracy of previously conducted Level 1 and 2 monitoring strategies. The program will also provide detailed assessments of several major southern California coastal wetlands prior to proposed restoration activities, resulting in better planning and assessment of restoration work and overall improvements to ecosystem functions and health.

In 2008, the California Wetlands Monitoring Workgroup (CWMW) was convened to coordinate wetland monitoring activities. In 2010, the California Water Quality Monitoring Council approved the State Wetland and Riparian Area Monitoring Program (WRAMP) prepared by the CWMW. The goal of the WRAMP is to track trends in wetland extent and condition to assess the performance of wetland, stream, and riparian protection policies, programs, and projects. The primary strategy is to implement standardized wetland assessment methods and data management through all of the State's wetland,

stream, and riparian monitoring efforts in ways that improve them while minimizing new costs and maximizing public access to assessment information. The WRAMP is intended to serve all State agencies and support the State Water Resources Control Board's Wetland and Riparian Area Protection Policy. All activities of this proposal are consistent with the WRAMP monitoring and assessment program. **Specifically, this program addresses the health status of wetland areas, by leveraging existing programs, using standardized core methodologies, and integrating with other regional programs.**

In 2002, a consortium of scientists and managers from California began developing a monitoring and assessment program modeled after USEPA's Level 1-2-3 framework for monitoring and assessment of wetland resources. The fundamental elements of this framework are as follows:

- Level 1: wetland and riparian inventories clarifying wetland extent and distribution.
- Level 2: rapid assessment, which uses cost-effective, field-based diagnostic tools to assess the condition and general health of wetland areas.
- **Level 3: intensive assessment to provide data to validate rapid methods, characterize reference condition, and diagnose the causes of wetland condition observed in Levels 1 and 2.**

Between 2002 and 2007, progress was made to develop tools and partnerships to implement the Levels 1 and 2 of the three-tiered approach. Most notably, the California Rapid Assessment Method (CRAM) for wetlands was developed, tested, and validated (Level 2). Regional wetland monitoring and assessment methods were also developed based on this framework, e.g. the Integrated Wetland Regional Assessment Program (IWRAP) developed by the Southern California Wetlands Recovery Project (WRP). The IWRAP program was vetted and endorsed by the WRP member agencies, which represent 17 Federal and State agencies responsible for wetland regulation, restoration, and management.

This program builds on recent preliminary efforts by the WRP to develop Level 3 standardized protocols for monitoring and assessment of coastal wetlands. The program will test and refine protocols with the assistance of the WRP Science Advisory Panel, to ensure peer-review by regional wetland experts as prescribed by the WPP. Peer-review is essential to ensure scientific credibility of core methodologies developed through this program.

The primary goal of this program is to develop standardized protocols for the site-specific, Level 3 assessment of coastal wetlands in southern California, and to field test these protocols at several wetlands. Level 3 is a more rigorous method that provides high resolution information on the condition of wetlands within an assessment area, often employing wetland bioassessment procedures or intensive plant, soil, or water quality analysis. The robust measures used in Level 3 assessments produce information that can be used to (a) refine or validate rapid assessment methods based on a characterization of reference condition, (b) diagnose the causes of wetland degradation, (c) develop design and performance standards for wetland restoration, including compensatory wetland mitigation, and (d) support the development of water quality standards that are protective of wetlands.

In addition to the development of Level 3 protocols, this program will verify and validate Level 1 and 2 assessments, and provide a better understanding of regional wetland distribution, health, and function. Specifically, this program will serve as a site assessment for several of the wetlands assessed in southern California by the CRAM program (Level 2), including Ballona Wetlands, Ormond Beach Wetlands, Mugu Lagoon, Malibu Lagoon, Carpinteria Salt Marsh, and Los Cerritos Wetlands.

A final reports will summarize data collected, assess Level 3 protocols, recommend Level 1, 2, and 3 monitoring methods for southern California coastal wetlands, and provide a manual including recommended Level 3 monitoring protocols. Data will be submitted to the California Wetlands Portal (www.californiawetlands.net), a free public access center for information about wetland projects, habitats, and habitat condition, and the EPA Assessment Database (ADB).

2. Description of Need

The WRAMP developed by the CWMW, and the IWRAP developed by the WRP, express the need for the development of Level 3 monitoring protocols applicable at wetlands throughout the region. The IWRAP framework currently identifies indicators for Level 3 monitoring, but it does not specify protocols for measuring those indicators. This program is the next step in building capacity to implement WRAMP and IWRAP by developing necessary protocols to implement Level 3 monitoring. The need for comprehensive wetlands monitoring and assessment is articulated by the National

Research Council's *Compensating for Wetland Losses under the Clean Water Act* report (NRC 2001), which called for wetland managers to:

- conduct ambient monitoring and assessment;
- create performance-based assessment tools to assist regulatory and management agencies;
- provide mechanisms to engage all regulatory programs via consistent approaches and tools;
- conduct assessment to provide a regional context for decision-making;
- develop a consistent approach to assess project performance; and
- provide a common framework and platform for data management and dissemination.

Regulation and management of California's wetlands and streams falls under the authority of six state and federal agencies. A need exists to implement standardized monitoring and assessment tools and approaches within state and federal agencies in California. The resulting data would help to better manage wetland and riparian resources, evaluate program efficacy, and facilitate improved coordination and communication within and between agencies.

The proposed program is consistent with *Elements of a State Water Monitoring and Assessment Program for Wetlands* (EPA 2006); it is designed to establish a baseline of wetland condition and create the foundation for evaluating the performance of a wetland restoration project¹. In addition, the EPA's *Enhancing State and Tribal Wetlands Programs Initiative* describes the need for programs to define wetlands monitoring objectives and strategies to integrate monitoring into regional efforts, including a Regional Wetland Assessment and Water Quality Monitoring Programs. **This program will develop Level 3 (site-specific) assessment methods and share this information with other state wetland programs to ensure that data collection is comparable. The program will also identify scientifically defensible indicators relevant for established monitoring objectives to represent wetland condition and functions, and develop appropriate methods for collecting these data.**

3. Outputs, Outcomes, and Results

Outputs:

¹ From *Elements of a State Water Monitoring and Assessment Program for Wetlands* (EPA 2006):

(1) Establish a baseline of wetland condition and/or report changes in condition in a State's Clean Water Act (CWA) Section 305(b) report or Integrated Report;

(3) Evaluate the performance of wetland restoration projects, including CWA Section 319 nonpoint source pollution control projects;

- 1) Develop scientifically valid Level 3 monitoring protocols for southern California wetlands that can be used to report the ambient condition of wetland resources.
- 2) Conduct a Level 3 assessment of several southern California coastal wetlands. Produce a report summarizing all data collected and comparative analysis; raw data will be publicly available through the program partners and submitted to public databases, including the California Wetlands Portal, and EPA Assessment Database (ADB).
- 3) Verify Level 1 and 2 assessment methods already conducted in California.
- 4) Develop a Level 3 coastal wetlands monitoring manual that can be applied throughout the region to assess and report the ambient condition of wetland resources.
- 5) Develop tools to assess improvement of wetland health and functions as a result of restoration.

Outcomes:

- 1) Increased understanding of the regional condition of coastal wetlands.
- 2) Increased understanding of restoration trajectories and potential triggers for adaptive management.
- 3) Improved restoration planning, design, and implementation.
- 4) Improved wetland protection efforts.
- 5) Increased understanding of how to ensure “no net loss” in quality and quantity of wetlands.
- 6) Increased quality of wetlands.

Link to EPA Strategic Plan:

This program helps fulfill EPA’s 2006-2011 Strategic Plan and supports Goal 4: Healthy Communities, Objective 4.3: Restore and Protect Ecosystems, Sub-Objective 4.3.1: Increase Wetlands: By 2011, working with partners, achieve net increase in wetland acres with additional focus on assessment of wetland conditions. **Specifically, this program will employ the USEPA’s Level 1-2-3 framework for monitoring and assessment of wetland resources to develop Level 3 monitoring protocols and assess Level 1 and 2 monitoring strategies for California coastal wetlands.**

The development and application of these scientifically valid, Level 3 protocols will allow a site-specific assessment of regional and individual wetland condition. An improved understanding of wetland conditions will allow better protection of the region’s valuable wetland habitat. Verification of Level 1 and 2 protocols will allow managers to apply the results of Level 1, 2 and 3 monitoring programs to make more informed management decisions.

The application of Level 3 monitoring protocols to specific sites will improve restoration planning, design and implementation by providing a comprehensive understanding of the cause and

effect of project-specific actions. The long term result of the application of Level 3 monitoring to restoration projects will be improved quality of wetlands. In addition, a better understanding of regional wetland conditions will allow state regulatory agencies ensure “no net loss” in quality and quantity of wetlands in regulatory programs.

Tracking Outputs and Outcomes:

Program progress will be tracked through production of program reports, including data and analysis of Level 3 monitoring efforts, and a Level 3 monitoring manual for coastal wetlands. Long-term outcomes will be tracked throughout southern California coastal wetlands as described below:

Measures of Output

- Characterization of wetland condition using Level 3 indicators at three or more coastal wetlands.
- Comparison of condition assessment using Level 2 and 3 indicators at three or more coastal wetlands. This will allow for demonstration of the relationship between multiple assessment levels and identify areas where the two levels of assessment are complementary.
- Monitoring manuals and protocols along with data submittal templates. These manuals will be made available to other restoration programs in the region and State. There are currently approximately eight major coastal wetland restoration projects in various stages of planning. The manuals produced as part of this project will provide for a consistent assessment approach that will increase overall comparability and efficiency of monitoring across the region.
- Assessment of wetlands prior to restoration implementation. This will become a baseline for future monitoring and assessment during and after restoration actions.

Measures of Outcome

- Long -term or multi-year implementation of Level 3 monitoring protocols at six coastal wetlands.
- At least three independent restoration/mitigation efforts use or adopt monitoring protocols developed for this program; restoration programs utilize the project to assess progress, adapt management strategies, and modify the programs.
- Future reporting by WRP and other entities incorporate these protocols.
- Expanded implementation allows a California-wide comparison of wetland condition.
- The State or WRP use the results of Level 3 monitoring to determine priority areas and site-specific needs for restoration, protection, and management.
- Level 3 assessment determines “no net loss” of quantity or quality of wetlands.

4. Project Tasks

Task 1: Develop Indicators and Preliminary Protocols; Lead: SMBRA, Support: SCCWRP, CSUCI]

This task will build on previous work conducted by the WRP IWRAP members to develop indicators for Level 3 assessment of coastal wetlands. Existing monitoring plans and reports, state and federal guidance documents, and peer-review journals will be compiled and reviewed. In addition, professionals engaged in monitoring programs will be consulted about the protocols employed. A Technical Advisory Panel (TAC) will be assembled to discuss existing monitoring strategies and potential protocols. A preliminary Level 3 protocols document will be prepared for TAC review.

Deliverables –references, TAC roster, meeting attendance and powerpoints, workplan, prelim. protocols

Task 2: Refine Level 3 Monitoring Protocols; Lead: SCCWRP, Support: SMBRA, CSUCI

The preliminary protocols developed in Task 1 will undergo TAC review to develop final Level 3 protocols for field testing as part of this task. Public meetings of the TAC will provide direct feedback and discussion of the proposed protocols, and will serve as an opportunity to engage science experts and agencies' staff and to refine protocols. Draft protocols will be provided to: 1) technical experts with experience in coastal wetland restoration implementation, 2) agency staff who typically review and assess monitoring reports, and 3) NGOs and other local groups that use this data for advocacy. Each group will be provided a set of specific questions/criteria against which to evaluate. The results will be used to revise the protocols. A final Level 3 assessment report including detailed protocols will be produced for field testing. A QAPP will also be prepared and submitted to the EPA as part of this task.

Deliverables: TAC reviews, meeting attendance and powerpoints, final Level 3 protocols, and QAPP

Task 3: Field Test Level 3 Protocols; Lead: SMBRA, Support: CSUCI, SCCWRP

Sites will be selected to cover the diversity of habitats and conditions, including levels of degradation and restoration, represented in southern California wetlands. Protocols will be selected for each wetland based on habitat (e.g. does the site have submerged aquatic vegetation) and conditions (e.g. muted or restricted tides). Initial field testing will determine feasibility, level of effort, field or lab time, and cost of each protocol. Field protocols will be implemented at all sites over an 18-month period to capture seasonal variability, and allow some repetition of protocols. A summary report will be prepared that evaluates the efficacy of each protocol and measures of within site vs. between site

variability associated with each protocol. We also attempt to test between user consistency for selected protocols. The results of this first phase of field testing will be used to refine the draft protocols.

In addition to reporting on application of the protocols, data will be summarized to produce an initial Level 3 assessment of condition in the study wetlands. These results will be compared to Level 2 data previously collected to demonstrate an integrated assessment of coastal wetland health. This assessment will also serve as a template for future monitoring and assessment reports.

Deliverables – data, monitoring report, Level 1, 2 and 3 assessment report recommendations, database

Task 4: Develop Level 3 Monitoring Manual; Lead: SMBRA, Support: SCCWRP, CSUCI

The final monitoring and assessment documents prepared under Task 3 will undergo TAC review to develop a Level 3 monitoring and assessment manual for southern California coastal wetlands as part of this task. Public meetings of the TAC will provide direct feedback and discussion of the monitoring manual, and will serve as an opportunity to engage science experts and agencies' staff and refine the manual. Additional stakeholders, including other state and federal agencies, non profits, independent scientists, and members of the public, will have the opportunity to comment on the monitoring manual through presentations at public meetings, and the proposed protocols will be available online. The final Level 3 monitoring manual will be developed through this iterative process and the final document will include detailed protocols, recommended priority for implementation (eg. whether to monitor vegetation or birds), level of effort, field and lab time required to implement protocols.

Deliverables – TAC reviews, meeting attendance/powerpoints, instructional videos, and monitoring manual

Task 5: Outreach; Lead: SMBRA, SCCWRP, CSUCI

Program partners will present the progress and results of the Level 3 protocol development and the Level 3 manual throughout the program period. Presentation will be made at state and national scientific conferences to discuss and receive feedback on the process to develop Level 3 protocols. In addition, program partners will meet directly with monitoring practitioners to discuss the benefits and application of Level 3 monitoring protocols. Program partners will present the develop process and

resulting manual to state agencies for implementation and adoption by state-wide programs.

Instructional videos of field and laboratory methods will be posted online as protocols are developed.

Deliverables – instructional videos, powerpoints and sign in sheets from at least 3 stakeholder meetings

5. Partnership Information

This program is a partnership between the SMBRA, Southern California Coastal Water Research Project (SCCWRP), and California State University Channel Islands (CSUCI). The SMBRA will provide project management, technical expertise, implement field protocols, conduct data analysis, develop all program documents and outreach; SCCWRP will lead the scientific review, and provide support for data analysis and development of program documents, as well as provide technical expertise and outreach; and, CSUCI will provide technical expertise and implement field protocols, and support for data analysis, development of program documents and outreach. Additional partners include the California Department of Fish and Game, State Water Resources Control Board, State Coastal Conservancy, and 17 WRP member agencies.

The SMBRA is a Joint Powers Authority between a state entity, the Santa Monica Bay Restoration Commission (SMBRC; www.smbrc.ca.gov), and the County of Los Angeles Flood Control District. The SMBRC is a National Estuary Program of the USEPA under S. 320 of the Clean Water Act. The SMBRA helps the SMBRC to fulfill its mission to restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, and protect the bay's benefits and values. The SMBRA implements programs and projects that improve water quality, restore habitat, increase public access and promote environmental justice.

As a National Estuary Program, the SMBRC has the following accountabilities to the EPA: (1) an in-house reporting system (Microsoft Access), (2) an annual work plan, (3) quarter/semi-annual/annual reports of work plan tasks and outcomes, (4) an excellent track record in managing EPA grants, and (5) procedures and policies in place to hire and oversee the work of subcontractors.

SCCWRP (www.sccwrp.org) has played a leading role in the development and implementation of California's wetland and riparian toolkit over the last ten years. This includes acting as a co-principal on the development and validation of CRAM and serving as the technical lead on a Wetland Demonstration

Project to begin implementation of tools in California agency programs. This experience has involved designing and implementing a statewide ambient survey of estuarine wetlands. SCCWRP scientists also play key technical support roles on the California Wetlands Monitoring Workgroup, the Wetland Recovery Project Science Advisory Panel and Wetland Managers Group, and on the SWRCBs Wetland Policy Technical Advisory Team. At an individual level, SCCWRP scientists have participated on the technical advisory teams for many of the major coastal wetland restoration efforts in Southern California.

California State University, Channel Islands (www.csuci.edu) is the newest of the 23 campuses that comprise the CSU system, the largest public institution of higher education in the nation. Founded in 2002, CSUCI has quickly gained a reputation for its pillars of student-centered education, service learning, international and multicultural education, and community relevant-scholarship. CSUCI faculty now lead several local, national, and international conservation and restoration efforts that span coastal wetland and riparian restorations in California, Louisiana, Mexico, and the Middle East. CSUCI faculty also lead the Gulf Coast Ecotoxicology Working Group evaluating coastal and marine impacts from the 2010 *Deepwater Horizon Oil Spill*, various collaborations with National Parks in California, the Society for Restoration Ecology International's new restoration practitioner certification program, and educational efforts in the Coastal Zone of Los Angeles, Ventura, and Santa Barbara Counties. CSUCI faculty sit on numerous Technical Advisory Panels, advisory boards, and joint power authorities across coastal southern California and Asia.

This project will be coordinated through the WRP IWRAP interagency committee. The WRP is a consortium of 17 federal and state agencies formed in 1998 to coordinate wetland recovery and management in southern California. The IWRAP workgroup has been working to coordinate wetland monitoring and assessment, including implementation of CRAM and Project Tracking.

- 6. Milestone Schedule (see next page, page 12)**
- 7. Detailed Budget Workplan (see page 16)**
- 8. Restoration Demonstration Project Information - Not applicable to the proposed project.**

Milestone Schedule

Project Tasks / Milestone	Start	Completion
TASK 1 – Develop Indicators and Preliminary Protocols		
1.1 Grant Award	9/30/2011	--
1.2 Literature review and assessment of existing monitoring plans	9/30/2011	12/31/2011
1.3 Coordinate with monitoring and assessment programs in the region	11/1/2011	1/31/2012
1.4 Prepare and submit QAPP to the EPA	2/1/2012	4/30/2012
1.5 Prepare Level 3 protocols for southern California coastal wetlands document*	1/1/2012	5/30/2012
TASK 2 – Refine Level 3 Monitoring Protocols		
2.1 Scientific review of Level 3 monitoring protocols	4/1/2012	6/30/2012
2.2 Refine Level 3 monitoring protocols	6/1/2012	7/31/2012
2.3 Prepare final Level 3 protocols for southern California coastal wetlands document*	5/1/2012	9/30/2012
TASK 3 – Field Test Level 3 Monitoring Protocols		
3.3 Select monitoring sites and protocols	4/1/2012	6/30/2012
3.2 Field test protocols	5/1/2012	9/30/2013
3.3 Prepare protocol assessment document and monitoring report*	5/1/2013	12/31/2013
TASK 4 – Develop Level 3 Monitoring Manual		
4.1 Scientific review of Level 3 monitoring protocols and results	7/1/2013	3/31/2014
4.2 Refine monitoring protocols and provide monitoring priorities and effort to achieve successful Level 3 assessment of wetland condition	1/1/2014	5/30/2014
4.3 Prepare final Level 3 monitoring manual for southern California Coastal wetlands*	4/1/2014	6/30/2014
TASK 5 – Outreach		
5.1 Present Level 3 monitoring protocol develop at state and national conferences	1/1/2013	9/30/2014
5.2 Provide direct hands on guidance to wetland monitoring practitioners and assist in the development and application of Level 3 protocols to additional wetland sites	1/1/2013	9/30/2014
5.3 Present Level 3 monitoring protocol development and manual to state agencies – DFG, SWRCB, SCC and CCC	1/1/2014	9/30/2014
5.4 Close grant	--	9/30/2014

*products/outputs will be made publicly available on the date of completion.

9. Programmatic Capability / Technical Experience / Qualifications

The Santa Monica Bay Restoration Authority (SMBRA) staff are lead scientists on a state program conducting comprehensive monitoring of the Ballona Wetlands Ecological Reserve, a 600-acre historic wetlands complex in urban west Los Angeles. The SMBRA has conducted peer-reviewed habitat assessments throughout the Santa Monica Bay and its Watershed, and is currently developing indicators of health for sandy beaches, rocky intertidal, and open bay environments. SMBRA staff supports regional and statewide monitoring and assessment efforts as a member of the WRP SAP.

Key Personnel

Sean Bergquist – Mr. Bergquist is a restoration program director with expertise in wetland and associated ecosystems of the southern California region. Mr. Bergquist has developed and implemented assessments in riparian, coastal wetland, coastal scrub, and rocky intertidal habitats throughout California. Mr. Bergquist is a professor of Stream Restoration and Environmental Sustainability.

Dr. Sean Anderson – Dr. Anderson is an Associate Professor of Environmental Science and Resource Management at CSUCI and the Director of the Pacific Institute for Restoration Ecology (PIRatE). He has designed, implemented, and assessed subtidal reef, coastal salt marsh, grassland, oak woodland, and riparian restorations across coastal California, bottomland hardwood swamp restorations in southern Louisiana, and riparian, lake, and grassland restorations across eastern Turkey for 15 years. He serves on multiple Science Advisory Panels and Boards related to Coastal Zone Management, ecological restoration, TMDLs and aquatic pollution, and seafood sustainability.

Dr. Eric Stein – Dr. Stein is the principal scientist of the SCCWRP Biology Department and has 18 years experience in developing and implementing wetland monitoring and assessment programs. He currently serves as co-chair of the Statewide CWMW which developed and is overseeing implementation of the statewide wetland and riparian area monitoring and assessment program (WRAMP), chairs the Wetland Recovery Project Science Advisory Panel and serves on numerous technical advisory committees for specific wetland restoration programs.

Karina Johnston – Ms. Johnston is a restoration ecologist with extensive field experience conducting surveys on vegetation, herpetofauna, mammals, fish, invertebrates, chemical analyses, and physical characteristics of a system in multiple habitats. She has lead wetlands, uplands, intertidal, and subtidal monitoring programs in southern California.

10. Transfer of Results

The Level 3 monitoring protocols for this program will be developed with the assistance of the WRP's SAP and the SMBRA Technical Advisory Committee (TAC). All program data, results, reports, and the final monitoring manual will be provided to these groups for application in other wetland projects. In addition, the protocols will be developed with restoration project managers at Los Cerritos Wetlands, Ormond Beach, and other projects to ensure transfer of knowledge and consistency of protocols. Regular updates and coordination will occur through the WRP IWRAP workgroup. Data will be incorporated in the California Wetland Tracker, an online database providing free public access to information about wetland projects, habitats, and habitat conditions. All reports will be submitted to the EPA and made available for download on the SMBRA and Ballona Wetlands restoration project websites

(www.ballonarestoration.org). Program data, results, and the final monitoring manual will be presented at regional and national conferences, including the Association of National Estuaries Programs, the WRP symposium, Headwaters 2 Ocean (H2O), Society for Ecological Restoration, and others. Additionally, the data and other information will be routinely reported through regular public meetings and through online videos to help disseminate our final protocols and assist with training.

Past Performance

The SMBRA works closely and shares staff and technical expertise with the Santa Monica Bay Restoration Foundation, a **National Estuary Program (EPA grant: CE 96971401-2)**. Together the SMBRA and Santa Monica Bay Restoration Foundation raise and expend funds for restoration, research, education, planning, cleanup efforts, and other priorities identified in the EPA-approved Bay Restoration Plan. Santa Monica Bay Restoration Foundation has an excellent track record in reporting on progress, financials, deliverables, and environmental outputs and outcomes to the EPA. We have used EPA funding to plan, manage, and conduct environmental monitoring, research, and restoration in coastal and riparian wetlands in southern California, and to initiate and support partnerships with groups working to advance wetlands science in California including the Wetlands Recovery Project of the State Coastal Conservancy, SCCWRP, UCLA, California State Parks, California Department of Fish and Game, nonprofit organizations, and others. The Santa Monica Bay Restoration Foundation also received a grant from the State Coastal Conservancy (**SCC-08-011**) in 2008 to implement a site-wide Baseline Assessment Program at the Ballona Wetlands Ecological Reserve.

SCCWRP has successfully managed many federally and non-federally funded projects similar in size, scope, and relevance to the proposed project. SCCWRP receives and manages approximately \$7,000,000 in grants and contracts per year. Previous grant activities have greatly contributed to progress towards achieving the environmental outcomes in California, including the increased protection and improved restoration of wetlands and riparian resources via: 1) Development of wetland maps/inventory; 2) Development of mapping tools and techniques; 3) Development and implementation of a tracking database; 4) Development of monitoring and assessment tools and

techniques; 4) Demonstration of wetlands monitoring with Level 1-2-3 tools; 5) Strengthening of compliance and enforcement monitoring and policy; 6) Strengthening coordination between regulatory and resource management agencies; 6) Working to align state and federal approaches to resource management. SCCWRP has been the primary recipient of multiple Wetland Program Development Grants since 2002, including the most recent grant allocations to develop reference sites to clarify and modify CRAM (CD969245010, 2008) and develop a framework to evaluate wetland ecological condition based on multiple indicators (CD00T186010, 2009).

In 2010, CSUCI received a grant from the National Center for Ecological and Spatial Analysis to explore the long-term impacts of the *Deepwater Horizon* oil spill. Progress continues, while expanding the potential of the ecotoxicological results to address wetland restoration throughout the Gulf.

Quality Assurance / Quality Control

SMBRA will work with the EPA to develop and implement a Quality Management Plan and Quality Assurance Project Plan (QAPP) to ensure that all monitoring activities and data analysis are conducted and reported in a manner that guarantees the integrity of these activities, and are maintained and peer reviewed in accordance with EPA Policy. This plan will ensure the scientific validity of sampling, laboratory, and data analyses and reporting activities.

Reports will be prepared for the life of the grant, and will summarize the results of the assessment and monitoring, including maps, who performed tasks, results, and comparisons of findings with previous data. Data will also be entered into the EPA's central water quality data repository. Each sample will include information about location, time, and the medium sampled.

Invasive Species Control

SMBRA will develop and implement a Hazard Analysis and Critical Control Point Plan (HACCP) to identify and eliminate potential pathways for the introduction and spread of invasive species. The plan will be reviewed and approved by staff at the Los Angeles Regional Water Quality Control Board prior to undertaking any monitoring/sampling activities. If invasive species are detected, staff will respond rapidly to control populations in an environmentally sound manner, as approved by the EPA Project Officer, and in accordance with the National Invasive Species Information Center.

7. Detailed Budget Workplan

Project Tasks / Milestone		US EPA WPDG							Match	
TASK 1 – Develop Indicators and Preliminary Protocols		SMBRA	SCCWRP	CSUCI	Equip.	Supplies	Travel	Overhead	Total	SMBRA/S CC
1.1 Grant Award										
1.2 Literature review and assessment of existing monitoring plans		2,400	800	400				360	3,960	
1.3 Coordinate with monitoring and assessment programs in the region		4,500		800			400	530	6,230	5,000
1.4 Prepare and submit QAPP to the EPA		4,500						450	4,950	
1.5 Prepare Level 3 protocols for southern California coastal wetlands document*		9,200	1,800	800				1,180	12,980	10,000
TASK 2 – Refine Level 3 Monitoring Protocols								0	0	
2.1 Scientific review of Level 3 monitoring protocols		4,500	9,200	800			300	1,450	16,250	5,000
2.2 Refine Level 3 monitoring protocols		4,500	1,800	800				710	7,810	5,000
2.3 Prepare final Level 3 protocols for southern California coastal wetlands document*		9,400	1,800	1,800				1,300	14,300	10,000
TASK 3 – Field Test Level 3 Monitoring Protocols								0	0	
3.3 Select monitoring sites and protocols		4,500	800	800				610	6,710	5,000
3.2 Field test protocols		115,000		38,000	28,000	14,000	3,600	15,300	213,900	80,000
3.3 Prepare protocol assessment document and monitoring report*		4,500	4,800	2,500				1,180	12,980	20,000
TASK 4 – Develop Level 3 Monitoring Manual								0	0	
4.1 Scientific review of Level 3 monitoring protocols and results		4,500	9,200					1,370	15,070	5,000
4.2 Refine monitoring protocols and provide monitoring priorities and effort to achieve successful Level 3 assessment of wetland condition		4,500	1,800					630	6,930	5,000
4.3 Prepare final Level 3 monitoring manual for southern California coastal wetlands*		9,200	1,800	2,500				1,350	14,850	20,000
TASK 5 – Outreach								0	0	
5.1 Present Level 3 monitoring protocol development at state and national conferences		1,600	1,800	1,800			1,200	520	6,920	
5.2 Provide direct hands-on guidance to wetland monitoring practitioners and assist in the development and application of Level 3 protocols to wetland sites		800		800			300	160	2,060	
5.3 Present Level 3 monitoring protocol development and manual to state agencies – DFG, SWRCB, SCC and CCC		800	1,800	800			300	340	4,040	
5.4 Close grant									0	
Total:		184,400	37,400	52,600	28,000	14,000	6,100	27,440	349,940	170,000

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date:

JUL 02 2008

SANTA MONICA BAY FOUNDATION
C/O MARIANNE YAMAGUCHI
320 W 4TH ST STE 200
LOS ANGELES, CA 90013

Employer Identification Number:

33-0420271

DLN:

608163017

Contact Person:

SHAWNDEA KREBS

ID# 31072

Contact Telephone Number:

(877) 829-5500

Public Charity Status:

170(b)(1)(A)(vi)

Dear Applicant:

Our letter dated August 1991, stated you would be exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code, and you would be treated as a public charity, rather than as a private foundation, during an advance ruling period.

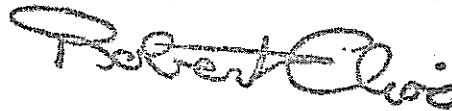
Based on the information you submitted, you are classified as a public charity under the Code section listed in the heading of this letter. Since your exempt status was not under consideration, you continue to be classified as an organization exempt from Federal income tax under section 501(c)(3) of the Code.

Publication 557, Tax-Exempt Status for Your Organization, provides detailed information about your rights and responsibilities as an exempt organization. You may request a copy by calling the toll-free number for forms, (800) 829-3676. Information is also available on our Internet Web Site at www.irs.gov.

If you have general questions about exempt organizations, please call our toll-free number shown in the heading.

Please keep this letter in your permanent records.

Sincerely yours,



Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Letter 1050 (DO/CG)

